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Thus it will be seen that if man has passions which impel him to the destruction of man, if he be the only animal who, despising his natural means of attack and defence, has devised new means of destruction, he is also the only animal who has the desire, or the power, to relieve the sufferings of his fellow citizens, and in whom the co-existence of reason and benevolence attests a moral as well as an intellectual superiority.—GRAVES' CLINICAL MEDICINE.

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A CASE OF OBSTINATE EPISTAXIS, REQUIRING PLUGGING OF THE POSTERIOR NARES, WITH SOME REMARKS ON THE AFFECTION AND THE OPERATION.

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(Read before the Boyle County Medical Society of the State of Kentucky, March 2, 1869.)

On Sunday morning, 7th of February, 1869, I was consulted by a member of the family of Mr. S. M., for advice as to the most proper course to pursue to check an obstinate hæmorrhage from the nose, of which Mr. M. was at the moment suffering.

The messenger said he had gone to bed in his usual health, and had awakened about four o'clock in the morning, to find his pillow saturated with blood. All ordinary popular means of which the family knew, had been tried without avail, and the bleeding was continuing at a tolerably rapid rate, though the patient did not at all complain of weakness, notwithstanding more than a pint of blood had been lost.

I directed the messenger (Mr. M.'s son) to tell his father to stand erect, with both hands held aloft as high as he could reach for a few minutes, and if not effectual in checking the bleeding, to have him put both legs up to the knees in as hot water as could be borne by him; to snuff up the nostrils ice-cold water, and bind ice around the neck and upon the head. Being in the act of visiting a case which

would detain me a half or three-quarters of an hour at the time, I told the messenger to let me know, about the time of my expected return, of the results of the measures recommended, and if they were not successful, I would go and see the patient.

Before my return to my office, Mr. M. had fainted, and a messenger was sent for my immediate presence; in the meanwhile, finding me absent, he took Dr. Dunlap with him. On returning to my office and seeing the call on my slate, I proceeded toward the house of the patient, but before reaching it, met Dr. D., who told me that on the gentleman's fainting, the hæmorrhage had ceased, and he had not found it necessary to do anything.

A dose of Epsom salts had been taken by the patient of his own accord, and he was told by the doctor to repeat it until the bowels were freely moved. It may be here said that Mr. M. had all along been in good health, and his bowels perfectly regular. The patient got on well on Monday and Tuesday, going about his business as usual, feeling none the worse for his bleeding. On Wednesday morning, the 10th, at break of day, I was again summoned to see him. His son said that at about the same hour as on Sunday morning, he had awakened and found his pillow saturated with blood, and that the hæmorrhage was continuing unabated. On my arrival, I found him sitting with his feet in a tub of hot water, and a basin before him with about three-fourths of a pint of blood in it, and a spittoon beside him containing nearly as much. I filled the left side of the anterior nares from which the hæmorrhage was coming, with lint saturated with powdered alum made into a magma with muriated tincture of iron, pushing the lint as far back as I well could. The blood ceased flowing at once. The pulse of the patient was very good, being seventy-eight to the minute, and about natural in volume. He said that he fainted on Sunday, not from weakness, he thought, so much as from the intense coldness and pain produced by the ice placed over his head and neck; the whole neck, and especially well over the carotids, being enveloped in ice. He says that his general health has never been better than for the past year.

Left him, enjoining quietude—informing the family that I had to ride several miles into the country, but that on my return I wished to hear from him. About ten o'clock A. M., the hæmorrhage recurred. I was sent for, but not having returned, Dr. Dunlap was again called in. On my return to my office at eleven, finding a message for my im-

mediate attendance, I went straightway to the house, and found Dr. D. with the patient, and that by the use of lint saturated with the per-sulphate of iron, the bleeding had been partially arrested, though not completely so. He had also given him, internally, ten grains of tannic acid. I learned that he had again taken "salts" that morning of his own accord, and that it had operated freely three times, the hæmorrhage returning during its operation. After waiting some time, and perceiving the blood to still flow down the pharynx by the posterior nares, and in front through the right nostril, the left nostril being firmly plugged, we removed the plugging, and replugged quite far back with fresh lint saturated with per-sulphate of iron and powdered alum. This again checked the hæmorrhage, when Dr. D. left. I remained with the patient about a half hour longer, when the bleeding again commenced, flowing in a trickling stream over the uvula into the pharynx; from its repeated recurrence and long continuance, a little web of fibrin having formed, and was hanging down from the uvula. I again removed the plugging, and endeavored to fill the posterior nares through the nostril with dry lint, and to pack it well up against the turbinated bones. This with care I could partially do, though could not pack the lint firmly upward where I most desired, and at a point from which I suspected the hæmorrhage to come, just where the narrow tunneled chamber uniting the anterior with the posterior nares expands out into the latter. However, I temporarily succeeded in again checking the hæmorrhage; but it was not ten minutes until the bleeding again recurred. I once more removed all the lint which I could, for some in the posterior nares remained, and again packed, covering the first dossils with dry powdered tannin, and used dry lint for the anterior chamber. Thinking, from the experience I once had in manipulating with a case of fibroid polyp of the posterior nares, that I might be able with my finger alone, unassisted by instruments, to place a piece of sponge against the posterior nares by way of the pharynx over the soft palate, with a good deal of difficulty, owing to the involuntary contraction of the soft palate, on touching its edges, drawing up against the superior portion of the pharynx, I finally succeeded in doing so—placing a soft piece against the posterior orifices of the two nostrils, as I could feel them with my forefinger. Again the hæmorrhage was checked, to again burst forth after a few minutes. The patient had now lost since morning, as well as one could estimate it, probably three pints of blood, possibly more. He did not, however, complain of faintness, though

the loss was commencing to tell upon his circulation, and his hands, all along warm, had become quite cold.

All ordinary means had now, to my mind, proven a failure; and a patient of sixty years of age, it is well known, will not recuperate from an excessive loss of blood like one of sixteen. Anyhow, I was unwilling to trust to further temporizing, or the repetition of the syncope of Sunday for its cessation. Plugging of the posterior nares was the only reliable untried means left. I returned to my office, and providing myself with a number five flexible gum bougie, some silk, and a large and a small sized uterine sponge-tent, in company with Dr. Dunlap, hastened back to the patient. Assisted by Dr. D., I introduced the bougie through the left anterior nostril, the posterior nares, and over the soft palate, until it emerged into the pharynx, when seizing it with a pair of dressing-forceps, I drew its point out of the mouth, and running a double silk ligature through the point of the bougie by means of a stout needle, ran the ligature through the large tent, so that the apex of the cone was toward the mouth. After fixing firmly the ligature upon the tent, and running another strand of silk through the base of the sponge so as to be enabled to withdraw it, I withdrew the bougie through the nostril, the ligature following after, drawing up the tent over the arch of the palate to the posterior nares. A little of the base of the tent projected against the pharynx, and obstinate gagging following, it was necessary to withdraw the tent, which was easily done by means of the single ligature, and cut it smaller. Again it was introduced, and seemed to answer; but after few minutes the moisture of the parts so swelled it as to make it again project beyond the arch of the palate, and render its presence intolerable. It was a second time removed, and trimmed down to a size rather less than the smallest tent, which we had not introduced from dread of its proving too small. This, though for awhile uncomfortable, was pretty well borne, its introduction being followed by instantaneous arrest of the hæmorrhage; the anterior nares being occluded by lint crowded in firmly, and the strands of the double ligature being temporarily passed over the cheeks and confined to the back of the head, the single ligature depending from the base of the sponge being drawn out of a corner of the mouth and confined over one ear. This was at four o'clock P. M. At nine at night, found him getting along as comfortably as could be expected, considering the fact that no air could pass through either nostril, thus necessitating the mouth's being constantly open for breath-

ing. Complained a good deal of a roaring in his head,* and throbbing above the roof the mouth where the sponge presses. Pulse, ninety-six. Left ten grains of Dover's powder, to be given if he should not be able to sleep without it.

Thursday, 11th—Rested pretty well by aid of the powder last night; pulse eighty. Has taken some mush and milk for breakfast, though swallows with much difficulty: says it hurts him to swallow, and that his throat is very sore. Prescribed twenty-drop doses of muriated tincture of iron every four hours. At dark he had marked fever; pulse, eighty-eight, full and hard; no headache, though complains a good deal of soft palate, and of the offensive odor from the decomposition of the retained blood and secretions within the nostril. Ordered bathing of the face and hands with cold water, a suspension of the iron, and a repetition of the Dover's powder if necessary to produce sleep.

Friday, 12th—Rested quiely last night after taking the powder. Mush and milk again taken for breakfast; pulse eighty; tolerably comfortable, considering everything. Ordered the iron in fifteen-drop doses as often as on yesterday. At nightfall again saw him. Skin hot; pulse eighty-eight, full and hard; feels quite uncomfortable. Says he took a glass of rich milk at each meal, to-day, as his food, nothing else; will take a glass and drink it all down at once without stopping—says he can not drink otherwise. Iron suspended, and Dover's powder repeated.

Saturday, 13th—As heretofore, pulse eighty in the morning, and at night eighty-four. Fever coming on every evening, since the vesperal excitement may possibly be due to the iron, ordered it suspended—indications for its use are not very marked anyway.

Sunday, 14th—The fourth day since plugging. Removed the dressing with some difficulty, owing to the tightness with which the sponge was wedged into the nares. On doing so, blood flowed down into the pharynx, clotting on the edges of the soft palate. It, however, seemed to be due only to the abrasion on removing the sponge,

* How commonly patients tell us of throbbings in the head, of noises of various kinds, purring noises, ringing noises, whirring noises, and the like! We treat these usually as nervous symptoms. They are so; but they are nervous symptoms developed through the blood vessels. The sounds are the sounds of blood passing through vessels off guard, of rubbing in osseous channels, or sonorous substance. They are examples of disturbed muscular balance between heart and artery. And, after great exhaustion, as after hæmorrhage, when the heart nerves itself, and by the least excitement is thrown into undue action, one of the first annoyances of the patient is the throbbing, the noise of the head. The balance is disturbed.—*Richardson on Arterial Murmur, Med. Times and Gaz., Oct.* 17, 1868.

which had been pressing so firmly on the mucous-membrane, for only a few sconds elapsed before its cessation. The apex of the sponge had been firmly wedged into the nares, and was covered with pus and mucus and tinged with a little blood. The nostrils were syringed out with cold water, and the patient returned to bed with greatly increased comfort, though he still can not breathe through either nostril.

Monday, 15th—Examined the patient this morning by hooking my forefinger around over the soft palate, and found the first piece of sponge introduced yet remaining and firmly impacted against the posterior nares, but more especially occluding the orifice of the right nostril. Was unable to remove it with my finger. A flexible catheter introduced by the nostril, failed to loosen it; but on making pressure very firmly, would curl upon itself. A silver catheter and large probe, on being used, each gave too much pain to persist in their use, and, besides, were attended by slight bleeding from the nostril. The trouble on using force by the nostril was, that it was impossible, by sensation alone, to determine that the pressure was not being made upon the mucous membrane of the nares, instead of the foreign body. The sponge was too far back to be reached with the straight dressing-forceps, and all the curved pairs accessible proved equally valueless, because of not being properly curved. To have been shaped properly, they should have been bent nearly to a right angle. Finally, the finger was introduced well back against the foreign body, and on pressing down the palate quite firmly, the sponge was loosened from its imbedded position, then by keeping the soft palate well pressed up, I, at last, with much effort, succeeded in hooking into it the point of Sims' tenaculum, and removed it. No blood followed its removal, though some pus was upon its apex. On first introducing this piece of sponge, a piece of sewing-thread had been fastened to it, but got broken off.

From our experience in this case, we would say, that in future we shall always make it a first care to attach a *stout ligature* to the sponge or lint, prior to its introduction. From the very strong traction which it was found necessary to use upon the first piece removed by means of the silken ligature attached to it, (so firmly was it impacted in the nares), the trouble must have been very great indeed, had not the precaution been taken to attach the ligature. We lay stress upon this point, because all writers upon operative surgery do not speak of the necessity of using this ligature. Bernard and Huette, whose work is our highest authority in this department of surgery, do not speak of it, though their translators, Drs. Van Buren and Isaacs, in a foot-note,

allude to it, and hint at the trouble liable to ensue when its introduction has been neglected.*

COMMENTS.

Epistaxis, or bleeding at the nose, (for though the word compounded of two Greek words *epi* upon, and *stazo* I flow drop by drop, would literally apply to slow bleeding from any point, has, as far as we know, been always confined in its application to hæmorrhage from the schneiderian membrane), is so common, so every day an occurrence, that it is usually deemed too trifling to be worthy the notice of the medical man; but as we *sometimes* see it, the best powers of the physician may be taxed in controlling it. Possibly the thin covering of the blood vessels of the nasal passages has rendered them especially liable to rupture, and possibly there may be something yet undiscovered in their minute anatomy, or close relation to the large cerebral vessels—the internal carotids, from which they originate, especially subjecting them to effusion of their contents. But, be the cause what it may, we are all cognizant of the fact that, with many persons, and especially children, nose-bleedings are exceeding common, succeeding slight injuries, or violent exercise, or mental emotion, or headache, or uncomfortable sense of fullness of the head, and that sometimes they are plainly vicarious to the discharges, and especially the menstrual in the adult.† So well is all this known, that with the masses, as well as with medical men, the discharge is generally deemed a salutary one—nature being supposed to use the parts as a sort of safety-valve, and the hæmorrhage to effect the prevention of probably worse troubles.

The direct connection of the ethmoidal vessels with the cerebral, makes epistaxis a local bleeding in cases of cephalic congestion. This has been long observed, and did not escape the shrewd observation of

* Mr. M. has, to this date, July 19th, had no return of hæmorrhage from his nose. There has, however, been constantly present, succeeding the epistaxis, an ozænal discharge, but free from odor, being simply mucoid. This, though it has diminished, still persists in a slightly annoying form, simulating a mild chronic catarrh of the left nostril, despite the systematic application of carbolic acid lotions and other means through Thudicum's nasal douche. It is a question in my mind, whether the discharge is due to an original lesion of which the epistaxis was the initial symptom, or has been produced by the per sulphate of iron and muriated tincture of iron and alum, or the continuous pressure of the sponge used in plugging.

As having a possible connection with the case, we would mention the fact, that while in New Orleans some thirty years ago, Mr. M. was gored by a bullock, the wound laying bare and injuring a portion of the left superior maxillary and nasal bones. From this injury, however, he had never especially suffered, nor had he ever had any serious hæmorrhage until the one above recorded.

† We are aware of a very curious epistaxial idiosyncrasy in the case of a stout young farmer, who has never been able to work in green hemp—any attempt to do so being invariably attended by repeated nose-bleedings.

Galen, who is related to have once increased his reputation very much by predicting that a patient suffering with a cerebral trouble to whom he was called, would not get better until the nose should bleed—a prognosis which the result verified. Wardrop mentions cases which, "after resisting general bleeding, and the application of leeches to the head, were instantly relieved by the escape of even a few drops of blood from the nose." He tells us of a lady suffering with a disorder of the head, who had obtained no relief from the local bleedings made at the hands of her regular medical attendants, and who ultimately consulted a quack celebrated for his cures of head troubles, who introduced up the schneideirian membrane an instrument which he twisted around, and was followed on its withdrawal, by a flow of blood from the nostrils to her immediate relief. Taking hint from such cases, we might seriously ask ourselves the question whether we are not neglecting a very efficacious means of local depletion in cerebral congestion and inflammation of the brain?

But it is not with reference to epistaxis as a therapeutic means applicable to the remedying of other troubles, so much as to the different therapeutic measures applicable to the remedying of epistaxis when it becomes a trouble, that we would direct attention.

It is a rare thing that nose-bleeding goes on to that point at which life is endangered; the very loss of blood, as a rule, bears its own remedy by weakening the heart's force, and hence it is, we infer, that so many remedies are in repute among the masses, coincidence being mistaken for consequence. And the fact that every case of epistaxis may at any time cease spontaneously, seems hardly to have been taken sufficient account of by many of the profession proper, who have recorded an unbounded faith in this or that article of the materia medica, because following its administration, there has been a cessation of bleeding. This should always be taken into account by us, when we read of certain medicines proving specifics for epistaxis in the hands of certain physicians. Premising this much, we would say that Dr. Pockle and M. Negri declare that they have found secale cornutum to succeed in arresting hæmorrhage from the nose, when plugging had failed.* Dr. Morris has found salt a specific.† Dr. Watson prefers acetate of lead internally in the disease, while Dr. Latham looks on the use of mercury to ptyalism as a specific, though we might say that cases are on record of epistaxis coming on while the patient was ptya-

* Verges Zeitschrift, in *Times and Gazette*, June 8, 1861.

† *Amer. Jour. Med. Sciences*, April, 1858.

lized. Intermittent epistaxis coming on on alternate days, and therefore apparently due to malaria, has promptly ceased on the administration of quinine. In years gone by, a prime remedy for this local bleeding was a general bleeding. Any one who will read the clinical lectures of the late Dr. John Elliotson, may find an account of an hospital patient of his, who had lost a pint of blood on three successive nights, and for whom he prescribed salts and senna internally, and venesection to the amount of f ℥xvi.

There seems to be, to-day, a very firm reliance on the part of most of the profession, upon purgatives in obstinate epistaxis, a reliance founded on the recognized physiological laws regarding counter-irritation, or determination of blood to parts. It is upon this explanation that table-salt has been recommended for the trouble, just as it has been done in hæmoptysis. It is worthy of comment, that in the case recorded above by us, the third recurrence of hæmorrhage, came on while the patient was at stool induced by the action of sulphate of magnesia. It may also be mentioned, that in the midst of his attack, he took dry table-salt in large quantities, just as I have prescribed it in hæmoptysis frequently with marked effect, though no good result followed its use in his case.

The manual or surgical means, are as numerous as the therapeutic or medicinal proper. A common one, founded possibly on anatomical considerations, though erroneous, is the placing of a pledget of lint or fold of paper beneath the upper lip; and a paragraph has recently been going the rounds of the newspapers of the day, declaring the insertion of a piece of ice between the upper lip and the gums to be a specific remedy. On the principle of shock, or impression reflectively acting upon the vaso-motor nerves supplying the Schneiderian membrane, just as the application of ice or a bunch of cold keys applied to the nape of the neck is of benefit, we may explain its efficacy; but any efficiency of the method is not satisfactorily applicable as we have heard it, by supposing the supply of blood to be cut off or diminished by pressure, inasmuch as that portion of the membranes covering the ethmoidal sinuses, and the part from which the hæmorrhage in obstinate cases is most apt to be found to flow, is not supplied by the coronary artery, but comes nearly directly from the internal carotid. The ice beneath the upper lip Mr. M. had faithfully tried, but without the least consequent benefit, before calling in medical aid.

Dumas, of France, thought pressure of the nares against the septum all-sufficient to check the hæmorrhage.

M. Gibon, of Cherbourg, believed pressure of the carotid artery of the side of the nostril from which the blood flowed, a sovereign remedy. But his reliance is not based on satisfactory anatomical grounds, when we recollect the general anastomosis between both carotids and the vertebral arteries.

M. Négrier, of Angers, some twenty years since, presented to the Academy of Sciences of Paris, what he thought to be an invaluable mode of checking the hæmorrhage, which consisted of raising aloft the arm of the side of the nostril bleeding, and compressing the nostril with the other hand. But, as the *London Lancet* of that day rather wittily said, in noticing M. Négrier's announcement: "The proposer neglected to state the process to be adopted when the blood flows from *both* nostrils—in this case it is clear that both arms must be raised perpendicularly, and we imagine the patient must close the nostrils by compressing them between the great toes." But Monsieur Négrier's recommendation is not entirely unsupported by a show of reason. He says: "When a person stands in the ordinary posture, with his arms hanging down, the force needed to propel the blood through his upper extremities is about half that which would be required if his arms were raised perpendicularly above his head. But since the force which sends the blood through the carotid arteries is the same as that which causes it to circulate through the brachial arteries, and there is nothing in the mere position of the arms above the head to stimulate the heart to increased action, it is evident that a less vigorous circulation through the carotids must result from the increased force required to carry on the circulation through the upper extremities.*"

There is something plausible in the *rationale* of the process of M. Négrier, though it signally failed in Mr. M.'s case. We ought, however, to say, that while engaged in writing this paper, we were called (at 8 A. M.) to see a stout negro man (who, however, has cardiac hypertophy with mitral disease), who had been suffering with epistaxis, since one o'clock the previous night, and who had tried pressing the nostril against the septum with no effect beyond checking the flow through it to come out at the other, and on compressing both, the blood trickled by the posterior nares into the pharynx. On my arrival, bathing the face and head with ice-water, snuffing ice-water up the nostrils, as well as the introduction of narrow peices of ice into the posterior nares, the snuffing of dry powdered alum, the placing of large lumps of ice

* *Archiv. de Med.*, *Lond. Med. Gaz.*, vol. 31.

over the carotids and upon the nape of the neck, were all tried in vain; but that on making him try M. Négrier's method, the hæmorrhage promptly ceased, without any return to the present, as far as I know.

If styptics, or a cold fluid could be brought into full contact with the bleeding surface, and kept continuously so applied for some minutes, it seems to us that next to plugging, we should have the most efficient means of arresting the hæmorrhage. The great difficulty of placing lint in accurate contact, or causing injections thrown in by syringe to reach, or be continuously applied to a spot situated high above the flow of the nares, and on the mucous membrane covering the deeply-groved fossæ of the turbinated bones, is readily imagined. In Thudicum's apparatus for the nasal douche, by means of which we know a continuous stream of fluid can be made to pass the entire circuit of the nares, entering one nostril, passing around the posterior nares, and flowing out by the opposite anterior nostril, it would seem that we have at command the means of fulfilling the indication most perfectly. This, however, is to a certain extent but conjectural; for though we are aware of the efficacy of its application in cases of ozæna, due to disease of the turbinated bones, yet I am unable to say that the stream sufficiently fills the nares during its passage, to be constantly in contact with the turbinated mucous-membrane in all its extent. I regretted much not having at command the apparatus, to try its effects in the case above related.

We are never justifiable in plugging the posterior nares, unless the patient is in imminent danger from loss of blood, until we have tried all ordinary means for its suppression; for, as Sir Thomas Watson truly says: "The operation of plugging the nares is not a very comfortable one to either bear or perform." Prof. Gross says that the practitioner who permits his patient to bleed to death from epistaxis, "should, provided he has had a fair opportunity of exerting his skill, be held personally responsible for his life." By plugging, we do not check the hæmorrhage by direct pressure, but what is really an indirect pressure is effected by the closure of the anterior and posterior orifices, the only apertures of exit; for although we have the *ductus ad nasum* remaining open, and have known a patient to blow blood out of the corner of his eye much to his surprise, and are acquainted with a little boy whom we have frequently seen blow air bubbles from the *puncta lachrymalia* for the amusement of his companions, yet while the blood can coagulate, no fears need be entertained of its welling up through this passage.

The operation of plugging the posterior nares is a very simple one, though performed under the circumstances under which we are frequently called to perform it, is usually a very disagreeable one, and to perform it upon a small child, or a nervous woman, whose terror and agitation tend to frustrate rather than aid our efforts, we imagine it one of the most disagreeable we can be called upon to perform in all surgery.

The ordinary operation is the one performed with Belloc's canula or sound, consisting of a watch-spring concealed in a curved silver canula; on the button which tips the instrument being sprung, the steel spring, armed with a stout silken double ligature, curls around the velum palati, and is readily drawn out of the mouth, enabling us to attach a piece of lint or sponge, to be drawn up into the posterior nares, on withdrawing the canula. The anterior nares we readily plug by tying the double ligature hanging out of the nostril around another piece of lint or sponge. (Dr. C. Edwards.)

Another method is, to pass a loop of silver or soft iron wire through the anterior and beyond the posterior nares, and drawing it out of the mouth, twist the wire around a dossil of lint inserted within the loop, to now be drawn back into the posterior nares, and the anterior ends to be twisted around another dossil inserted into the nostril.*

Franck has recommended a piece of dried pig's intestine, with one end tied, to be inserted beyond the posterior nares, by means of a sound, and on water being injected into it, when full, for the end outside the nostril to be tied. Dr. E. A. D'Arcy, of Jerseyville, Illinois, in the *Medical and Surgical Reporter*, of October 22, 1869, gives an account of a case of obstinate epistaxis, in which he had been unable to stop the bleeding by plugging after the ordinary method, in which he then tried the pig's intestine, but which burst by the distension from the water. He then had a sheep killed, and used the œsophagus, which he said proved sufficiently strong, and enabled him to save his patient's life.†

Mr. Patrick Gillespie has used glazier's putty enclosed in a linen bag, after unsuccessfully using lint; the hæmorrhage, however, recur-

* *London Lancet*, Feb. 3, 1849.

† Since reading the report of Dr. D'Arcy's case, we have made some experiments with the œsophagus of the sheep. We know not from what breed of the genus *ovis* Dr. D'A. got his specimen, but we would say that had he taken it from one of the ordinary animals furnished this market, his patient's nares would have had to grow to double the diameter of an ordinary person's, before, I think, he could well have succeeded in passing it through.

red once or twice on the skrinking of the putty, and from his account of its effects, we certainly would not feel disposed to rely on it.

Martin St. Ange, modifying Franck's method, has invented a little instrument which he calls the Rhinobyon, consisting of a small bladder fastened to a silver canula, with a stop-cock attached. The bladder being inserted to the posterior nares, is inflated with air, which is retained by the stop-cock, and the nostril in front is then plugged with lint.

Probably the *condom*, made of india rubber or gold-beaters' skin, and now to be found, we believe, in most of the drug-stores of the country, would, perverted from its original purpose, serve an excellent end in cases where the ordinary means had failed.

One of the simplest means, and such as is at the hands of every doctor, is that recommended by Martin Solon, which consists in the introduction of a flexible gum catheter or bougie through the nares into the pharynx, the end of which, on being drawn out through the mouth, can be readily threaded and armed with sponge or lint, or bladder, and on being withdrawn, can as efficiently serve the purpose of Belloc's canula as one could wish for.

We would give it as our humble opinion, that it is impossible for the nose to bleed when it has been properly plugged by the simple sponge. But to plug efficiently, we think it insufficient that a piece of sponge of any shape, or no shape, should be attached to the ligature, as is generally done, but that fine compressible sponge should be selected, should be cut into a cone the apex of which is sufficiently small to *enter the nares*, and thus accurately close the aperture of exit.

If this should fail because of fluidity of blood from the previous exhausting hæmorrhage, the uterine tent of compressed sponge, we imagine, could not, though, we think, the uncomfortableness following its swelling, makes it unadvisable to use it, unless under extreme circumstances.

Dr. W. H. Triplett, of Woodstock, Va., has recorded a case which, in his hands, proved fatal, after exhausting the application of all the local astringents, giving every hour, internally, two grains of acetate of lead and a grain of opium, until the patient fell asleep, and plugging the posterior nares with soft surgeons' sponge. After the plugging the hæmorrhage was checked for some hours, but while sitting up in bed eating, the stream commenced trickling down beside the sponge, and the patient bled to death.*

* *Medical and Surgical Reporter*, 1869.

We have only been able to find one account of the post-mortem signs exhibited by the schneiderian membrane after death from epistaxis. This was related by Mr. Crisp before the London Medical Society in 1839, and was the case of a woman who had lost a large quantity of blood, (estimated at four quarts), before the nostrils were plugged. She died after the operation in convulsions, and after death Mr. Crisp says: "On removing the right nasal and superior maxillary bones, the body of the sphenoid and the orbital plates of the frontal, the mucous-membrane of the nose and the sinuses were examined with great care, but no vessel could be discovered from which the blood had passed. The membrane over the inner portion of the turbinated bone was in a state of slight ecchymosis, and a small clot of blood was in contact with it."*

Probably some present may think an apology due, for detaining you so long upon so small a subject as "bleeding at the nose;" but those of you who have had, or in future may ever have, a desperate case requiring plugging of the posterior nares, will hardly think the *affection* a trifling one, whether what I have said has been worth listening to or not.

THE TRUE AND THE FALSE IN THE PROFESSION OF MEDICINE.

BY DR. WILSON HOBBS, CARTHAGE, INDIANA.

(Read before the Union Medical Society at Knightstown, Indiana, at their April session, 1869, and by their order offered for publication.)

(*Continued from the August Number.*)

But the most gigantic system of quackery that ever cursed the world, and surely we may expect none greater, is our present institution of Patent Medicines. It is a loathsome disease which has invaded the whole earth from pole to pole, and from ocean to ocean. While it has made princely fortunes of ill-gotten gain for a few designing men, it has filled the land with mourning and the whole earth with lamentation. Satan has thoroughly equipped patent medicine venders with his whole armor of falsehood and deceit. There is not a disease, however malignant, which they no not promise to cure—there is not a pain they do not promise to relieve—there is not a wound they do not promise to heal.

* *London Lancet*, 1839, vol. II.

The world is flooded with bitters, tonics, anti-periodics, alteratives, syrups, balms, balsams, pain-killers, pain-reliefs, pain-paints, pain-extracters, pectorals, expectorants, panaceas, cholagogues, mixtures, extracts, embrocations, liniments, salves, blood-purifiers, blood-regenerators, oils, lozenges, plasters, vermifuges, ointments, and pills, enough to fight all the battles of the world, if they were made of heavier metal.

The etymology of every language in the world, from the Hottentot to the Anglo-Saxon, is taxed to furnish names for these vile compounds. A large department in our country stores is always allotted to them, and each neighborhood post office is sure to be supplied. The drug store must allot at least every other shelf to them, and no reputable newspaper thinks it right to appear with less than two pages devoted to their wonderful merits. They have so entirely monopolized the almanac business, that now-a-days one can not look for the day of the month or the change of the moon, without being insulted by a patent medicine advertisement. The public highways are made disgusting by the indecent and lying notices printed upon the fences and out-houses, where the eye of the traveler may chance to fall. Every means which the arts of civilized life have supplied for the communication of intelligence is prostituted to this ignoble purpose, that there may not be a victim of disease or accident upon the broad earth from which something may not be filched. The appeals for public patronage are addressed to every generous impulse and noble sentiment of the human heart. "If it were possible they would deceive the very elect."

Let us analyze some of these popular medicines, and see what they are worth. Of those designed for internal use, the most are applicable to chronic disease if to any at all, and may readily be divided into three great classes, viz: expectorants, alteratives and tonics, to suit the three great families of disease, viz: of the pulmonary and digestive organs, and of the general nutrient system. If the nostrum be designed for pulmonary disease, the advertisement will set out with an enumeration of all the symptoms and conditions which can possibly arise in the various diseases of these organs, either acute or chronic, presenting them as so many separate diseases, and closing by saying that this wonderful preparation will certainly cure them all; and wonderful indeed it would be if it could be made to answer so many different conditions.

Ayer's cherry pectoral is designed for such diseases, and is com-

posed of the syrup of wild cherry tree bark, tartar emetic and acetate of morphia. This would be a good prescription for some cases of cough, but it can not cure consumption, and no one who understands the pathology of phthisis pulmonalis would recommend its continued use in that disease. It is a suitable prescription in but a very small number of the cases in which it is paraded as a positive cure; yet thousands of unfortunate invalids have been induced by flaming advertisements and manufactured certificates, to place all their earthly hopes upon its delusive promises, until, when undeceived, they were upon the brink of the grave from which nothing could rescue them. So of the whole class of villainous balms, balsams, extracts, cholagogues, &c. There is nothing new about them, and very little that is useful. Their great success arises from the fact that many persons suppose themselves sick who are not so, and after using half a cord of bottles of some panacea, they have but to suppose themselves well again to be so.

Of the family of pill, rhubarb, aloes and soap are the constituents of ninety-nine out of every hundred of those which are cathartic, and of those which are tonic, the bitter extracts with sometimes the addition of a little iron will tell the story of them all. Among the liniments there is little choice and little difference of composition. The volatile oils, capsicum, camphor and alcohol constitute the whole of them, and I would not give the snap of my finger for the difference between them. Perry Davis' pain-killer is little else than tr. of capsicum.

The most useful class of patent medicines are those which have the least medical effect. Swain, Townsend and Bull each made princely fortunes by the sale of the syrup of a drug almost destitute of medical qualities. I am sorry that this occasion will not allow me to do justice to this villainous traffic.

Neither will time allow me to discuss the more humble quack systems and quack doctors. I can barely stop to mention Indian doctors who go to heathenism to learn science. Since my attention was directed to medicine I resided two years among the savages upon our Western border, and while there I took especial pains to learn what the Indians know about disease and its treatment. The properties of a few plants are known to them. They frequently cord the arm and draw blood with sharpened flint; but aside from a few simple means, they rely wholly upon conjuration and incantation. They have few diseases amongst them, and these few are acute—rarely chronic. The

reason they are so stout and hardy a people is not their successful treatment of disease, but their mode of life, which nips in infancy all who have not iron constitutions—thus preventing the transmission of hereditary weaknesses.

We have root-doctors, too, whose eyes, like their brother rooters, never take in the light of the sun—Scotch doctors, that old Scotia would blush to own—wind-doctors, who blow fire out of burns and scalds. These were important inventions in the days of steam-doctors—blood-doctors who, without making a peg, can stay hemorrhages—conjuring doctors, who can cure disease by touch, &c. Your patience would tire were I to recount the whole race of quacks.

Let us look at the general character and professional attainments of these monstrosities. Whatever system of medicine we may favor, whatever opinions of disease and its proper treatment we may entertain, the structure of our bodies is the same, and we should equally and alike understand anatomy; the functions of the organs are the same and we should alike understand physiology. So of all the several branches which go to make up the science, except pathology and therapeutics. Here are the only points upon which we can differ. Hence, whether a man is a steam-doctor, root-doctor, hydropathist, homœopathist, allopathist, or what else, the same diligent and patient industry, the same protracted and persevering research, are necesary to fit him to assume the responsibilities of human life at the bedside. There are to my knowlege, and there have never been, but two systems of medical practice, aside from the regular profession, which conferred the degree M. D., or required a preliminary education to practice.

In the days of Thompsonianism I knew many self-styled doctors who never read medicine a month before commencing practice, and never in my life did I know one who understood medicine as a science, or who looked into books for knowledge. So of the whole spawn of medical pretenders. Their art, if they can be said to have any, is not founded on a science, and they study no science to acquire an art.

Examine the nest of Indian doctors, Uroscopian doctors, Physio-medical doctors, and the whole kith and kin of the race of empirics, and we can not but rejoice that they disclaim the use of calomel and the lancet—these would be dangerous means in such hands, used without knowledge and guided without judgment. These remarks apply with equal force to all pretenders, whether in or out of the regular school. Unfortnnately some ape the scientific profession, who have no fitness for their high duties. All such should be made responsi-

ble in our courts of law, for there is no good reason why every man who obtains money by false pretenses, be those pretenses what they may, should not be punished for his perfidy.

Most of these pretenders vest their spleen upon certain drugs used by the scientific profession, while they accept many or most others which we use. They first object to mineral medicines—they would shut out from their catalogue everything but vegetable simples; vegetable simples alone is their motto, and with this upon their lips, ninety-nine out of every hundred prescriptions which the knavish fools make contain one or more minerals. What is a mineral? "A body destitute of organization, and which naturally exists within the earth or at its surface." We eat minerals, and drink them, and breathe them, and they are contiually floating around us—indeed our bodies are but an aggregation of mineral matter, united by fixed cohesive and chemical laws, and organized and made alive by certain vital processes. Hence minerals can not be very dangerous things after all.

Some sects say it is not *minerals* to which we object, but the *poisonous minerals*. Well, if we go to casting poisons out of the "kit," why not cast out vegetable poisons also? The most violent poisons which nature or art has ever produced are from the vegetable kingdom—indeed, there are few mineral poisons of any considerable potency.

A substance may or may not be poisonous according to the circumstances under which it is used and the quantity taken. One grain of arsenic is a poison—one-sixteenth of a grain is not; ten grains of opium is a poison—one grain is not. So we must not set drugs aside because they are poisons, or we will have little left.

But the most decided objections are brought against calomel, opium, blistering and the lancet. I can not now discuss the merits of these remedies, or the nature of the objections brought against them; but I will here say that did I believe that calomel had produced one hundredth part of the miseries imputed to it, I would cast it from me despised and detested.

But I know the accusation false as imputed. The honest history of the drug—the testimony of the profession—my own observation and experience so prove. I know it to be a mild medicine, and at the same time a potent agent. It should be administered only by those who understand its properties and uses—the same may be said of all remedies. It has, doubtless, sometimes produced bad effects, but I have never seen such. I have been nearly twenty years engaged in the

practice of medicine—three years an army surgeon—where many thousand sick passed under my eye, and in all that time I have but once seen a mercurial ulcer as large as a wafer. I am nearly forty-six years old, and never yet saw a case of mercurial gangrene—have seen but two cases in which an intelligent jury would decide that mercury had left permanent traces behind it. I am well satisfied that I have seen hundreds of cases in which it gave the only hope of life.

But even admitting that sad effects sometimes follow its use, science has furnished us no substitute for it, and it is far better that a few should bear its permanent traces than that many more should die without it.

We frequently hear persons who have arisen from what was for weeks or months thought to be a death-bed—with impaired constitutions, attribute all their infirmities to the *strong* medicine they took while sick, especially to the calomel and quinine—not once dreaming that the disease which brought them to "death's door," could have done them any permanent harm. All injuries must be saddled upon the friends that come to the rescue—nothing upon the enemy that made the attack. This parade against "*strong medicine*" is made to deceive. Suppose an invading army were landed upon our shore, would we send boys to drive them back? If an armed assassin should attack your family, would you send a child to the rescue? As well might we in cases of malignant disease, go forward to meet the grim monster death, and give him battle with milk and water forces. Such attacks demand the whole artillery of medication, and even then the assailant is too often victor. The defence should be wisely proportioned to the invading force. To-day I was called to see a lady suffering from acute inflammation of a vital organ. As I moved my seat to the table to arrange my prescription, she said to me: "Please, Doctor—please don't give me any strong medicine. I am so weak I can't bear it." She knows not why she is so weak. She does not realize that an armed foe has taken complete possession of her, and bound her hand and foot, and that none but a mightier than he can dispossess him.

But we must not pursue this subject further, interesting as it is. We have thus hastily reviewed a few of the Quack systems and Quack doctors which, during the last few years, and at present, have claimed and now claim the honors and profits of the profession of medicine. From the greatest to the least of them, they have no settled principles founded upon reason or science, but are made up of a few specific

modes and uncertain opinions; and, wandering from these, they become self-contradictory and lost. Like will-o'-the-wisps, they arise from the bog in which they are born, to dazzle and mislead the credulous beholders—flourish their brief hour in darkness and clouds, and disappear to make place for a successor. Whereas true medicine has gone onward, right onward, gathering wisdom from every age, country and clime. The sleeping centuries have not dimmed the lustre of her eye, or silvered her aged locks, but with the freshness, vigor and elasticity of youth, she steps right onward with the majesty of a queen. The fruits of beneficence and love are scattered wherever her footsteps tread; and when her arm is too short to save, she drops a tear and points to God.

"Hail, noble Queen! Speed onward—right on!"

A SYNOPSIS OF SOME GUNSHOT WOUNDS.

BY PROF. EDWARD RIVES, M. D., OF CINCINNATI.

The following is a report of gunshot wounds which came under my personal observation and care at the battle of Gettysburg, and is taken from the original record made by myself during the period of the existence of the field hospital, (about six weeks,) of which I had charge.

The wounded were, generally, men of robust constitution and in fine physical condition at the time of the receipt of their injuries.

It is proper to state that the situation of the field-hospital was on an eminence, at the foot of which flowed a bold stream which supplied us with an abundance of fresh, clear water. The shelter which I preferred and obtained was the single *tent-fly*. Each one was so stretched over the ridge-pole as to be about three feet from the ground on the sides, and of course the ends were entirely open. Three men were as many as were placed under one shelter. Perfect drainage was accomplished by ditching and by the natural declivity upon which the hospital was established.

As the reader is aware, the season was nearly mid-summer—intense sunlight, alternating with frequent showers.

Police duty was daily performed by detailed nurses and convalescents.

All debris was carefully removed and buried in sinks, into which fresh earth was daily thrown.

Owing to a deficiency in the number of tent-flies, about seventy-five men were placed in contiguous houses. These wounded congratulated themselves upon what they conceived to be good fortune, but which I would have been glad to avoid; and the result proved what I expected, namely, a greater mortality and slower recovery in the houses than under the flies. This experience accords with all my previous and subsequent observation of field-hospitals. Nor can I attribute this difference in mortality and recovery to any difference in the class of cases in the respective situations. Of the wounds here reported, the majority of complications of tetanus and all of the cases of hospital-gangrene, erysipelas and pyæmia occurred in the houses.

Some explanation is due to those not acquainted with the great difficulty, nay, impossibility of making a full and satisfactory record at such a time and under such circumstances.

There were many individual cases whose intimate history would have been of great interest to the profession, and which would have afforded me great pleasure and satisfaction to report, but the press not only of professional but of executive business on such occasions renders a close record of each individual case impossible. Many of the salient points of these cases I remember, but in matters of this kind I prefer to adhere to records made at the time, lest I might, unwittingly, be led and lead others into mistake.

These records, if valuable at all, are, therefore, chiefly so in a general statistical point of view, and I give them to the profession for what they are worth:

SITUATION OF THE WOUNDS.	Numb'r	Deaths.	Pr. Ct'g of Deaths.
Abdomen	16	8	50
Leg	46	6	13
Forearm	27	2	7
Face	9	..	...
Humerus	9	..	...
Testicle	2	..	...
Thigh	53	4	8
Perineum	1	..	...
Foot	15	..	...
Back	12	1	8
Ankle	5	1	20
Hip	6	..	...
Buttock	2	..	...
Neck	7	1	14

SITUATION OF THE WOUNDS.	Numb'r	Deaths.	Per Ct'g of Deaths.
Breast	17	5	29
Side	11	..	...
Shoulder	14	3	23
Knee	8	3	37
Elbow	1	..	...
Head	6	3	50
Wrist	1	..	...
Hand	2	..	...
Penis	1	..	...
Total	271	37	14

With the exception of four shell-wounds, all were caused by small projectiles—a fact accounted for by both the comparative infrequency and fatality of shell-wounds.

It will be seen from the foregoing table that the total number of cases was two hundred and seventy-one; that the total number of deaths was thirty-seven, that the per centage of deaths was thirteen.

There were thirty-four amputations performed, eight deaths resulting thereafter, making twenty-four per cent. of deaths subsequent to amputation. The adjoining table exhibits the mortality following amputations of the several parts:

	Numb'r	Deaths.	Per Ct'g of Deaths.
Forearm	23	1	8
Humerus	6	..	..
Thigh	7	4	57
Leg	8	3	38
Total	34	8	24

It is proper to state that the circular operation was performed wherever practicable, and in the majority of cases.

The death against the amputations of the forearm was caused by a wound of the right lung, received simultaneously with that of the arm.

Of the three deaths against amputations of the leg, one case died of tetanus—one suffered amputation of both legs simultaneously—and one was a secondary operation, and died of pyæmia.

Of the four deaths against amputions of the thigh, two cases died of tetanus—two died of pyæmia, and were secondary operations—all were at or above middle third of the thigh.

In all, there were three secondary amputations, and all proved fatal—death occurring from pyæmia.

One resection of the shoulder-joint was successfully performed by Dr. Lewis, now of Alexandria, Va., very soon after the receipt of the wound. The head of the humerus was removed with an inch of the shaft. I am told that at this time the patient perceives little difference in the utility of his arms.

No secondary hemorrhage occurred to complicate any case.

Nine fractures occurred not requiring operative interference beyond the simple removal of comminuted bone. All promised to make a good recovery at the time they were removed to the general hospital. The situation and relative numbers of the fractures is as follows:

Forearm, two; humerus, four; clavical, one; leg, one; thigh, one; fractures requiring no operative interference, nine.

Visceral wounds were attended with the following mortality:

	Numb'r	Deaths.	Per Ct'g of Deaths.
Peritoneum and bowels	7	6	86
Lungs	8	5	63
Bladder	1	..	...
Brain	3	3	100
Total	19	14	74

Wounds of joints were attended with the following mortality:

	Numb r	Died.	Per Ct'g of Deaths.
Knee	8	3	38
Elbow	1	..	...
Wrist	1	..	...
Ankle	5	1	20
Shoulder	7	..	...
Total	22	4	18

No operative interference was allowed in any of these wounds, ex-

cept the resection of the shoulder-joint in one instance, and amputation in two instances.

The comparative liability of different regions to injury in battle, according to this report, as well as the number and per centage of deaths, may be seen from the following table:

		Numb'r of W'nds.	Died.	Per Ct'g of Deaths.
1.	Inferior extremity	127	14	11
2.	Trunk	79	17	22
3.	Superior extremity	40	2	5
4.	Face	9	..	..
5.	Neck	7	1	14
6.	Head	6	3	50
7.	Genital organs	3	..	...
	Total	271	37	14

Of seven cases of tetanus, three occurred after amputation—all died. Of the wounds of the abdomen, one is especially worthy of mention.

It occurred to "John Dowdy, Company G, twenty-eighth regiment." He was struck by a minnie ball just below the ensiform cartilage, about five o'clock in the evening; the next morning he passed the ball by the rectum imbedded in natural fœces.

This is not so strange as the fact that he recovered without any appreciable constitutional disturbance beyond that produced by opium.

The other deaths not accounted for (nine) occurred from the shock of wound, tetanus, dysentery and pyæmia.

THE FORCES OF ORGANIC LIFE—HOW INFLUENCED BY CHLOROFORM IN THE PRODUCTION OF ANÆSTHASIA AND DEATH.

BY Z. C. M'ELROY, M. D., OF ZANESVILLE, OHIO,

President Muskingum County Medical Society.

Many years since—the writer is no longer young—the following incident was read, when or where, not now recollected.

An Englishman, after ship-wreck, found himself on an island, among a people whose language he did not understand. This added

so much to his other misfortunes and difficulties, that he conceived the idea that a common education in all civilized countries should include a universal language of signs, for the benefit of those who might possibly be thrown together speaking different languages. In due time he reached home, and immediately set about carrying his idea into practical effect. For this purpose he visited the great seats of learning in and about London, but met with little or no encouragement, save that at one of these he was informed that there was such a chair, with a professor, in Edinburgh. He at once hastened off to that city. Those in London who had told him this to get rid of him, finding him so much in earnest, wrote to some acquaintances connected with the University there, to humor his whim when he arrived, and give him an audience. On inquiry of the janitor at Edinburgh, he was informed that there was a professor of a universal language by signs, and that he would be in his rooms at a certain hour. The matter was taken in hand by a few students, who imposed the duty of acting the professor upon the rather sharp witted janitor, who had lost an eye. At the appointed hour, the stranger was promptly at the University, and was conducted to the professor's room. On entering he held up one finger. The janitor, in reply, held up three. There were other signs exchanged, but these two serve my present purpose. After being bowed out of the professor's room, he was met by the mischievous students, who eagerly inquired of him about his interview. The Englishman replied by stating that on entering he held up one finger, to signify that there was but one God. The professor had held up three, signifying that God existed in the three persons, the Trinity, &c., &c. Their next object was to obtain the janitor's account; who said that the Englishman was very personal and impudent, for on entering the room, he had held up one finger to signify that he, the janitor, had but one eye. In return, he said he had held up three fingers, to signify that they had three eyes between them.

The article on "Death from Chloroform,"* by Dr. Jones of Circleville, O., recalled this incident to memory. Though our subjects are not identical, there is, nevertheless, a close relationship; sufficiently so, perhaps, to be practically treated as such. He thinks my theoretical explanation of the conversion of gravity into organic force,† in resuscitation from impending death, due to overdoses of choroform, very absurd. That may be so; but it seems to me he fails to show it

* *Western Journal of Medicine*, July, 1869.

† Loc. Cit., May, 1869.

to be so, either by facts or reasoning. That it was theoretical on my part is not an argument against the truth of the explanation given; for the only originator of action can be theory, and the choice lies between one that is hap-hazzard, and one that is adopted on rational grounds."*

Three facts are, however, recognized by both of us: One, that overdoses of chloroform have produced death; another, that by all quantities, small or large, life is often placed in jeopardy; third, that those so imperiled are frequently resuscitated.

Now, the actual death, or peril to life, after the inhalation of chloroform, and resuscitation from impending death, do not occur by chance or accident; but, like all other phenomena of organic life, are in obedience to invariable laws, and correct philosophic explanation of the events, hinges upon connecting them properly with the laws governing organic dynamics. Permit me, therefore, space for further explanation.

From our articles, it is evident that Dr. Jones and myself look at organic dynamics from very different stand-points, or the conclusions we arrive at would hardly vary so much; for they are as diverse as the interpretations of holding up one and three fingers, respectively, by the shipwrecked Englishman and Edinburgh janitor.

Through two decades of professional experience the human body and life were mysteries, and therapeutics a muddle; though Horner, Jackson and Wood had explained them to me, as they had done to thousands before and since. It was somehow comprehended, though not very clearly, that human bodies were constructed out of the food eaten; but then there were so many isolated and contradictory facts in regard to it, all resting on equally good "authority" in such matters, that I was contented to learn, in therapeutics, that "tetanus" had been "successfully treated with calabar bean," or that "chestnut leaves" were good for "whooping-cough,"† &c., &c. And so, chewing the cud of contentment, relied on "authority" in all matters professional; not, however, without many misgivings as to its propriety, and longings for a "more excellent way."

Some years since a review of a book was read whose subject was "The Correlation and Conservation of Forces." At that time I was somewhat anxiously casting about for a subject for a "valedictory address," to be delivered to the society which has so often honored me

* *London Quarterly Review*, April, 1869.

† From current *Medical Journal*.

by electing me its presiding officer. No time was lost in obtaining the book, an American republication, as well as some English works, and, in fact, all that had been published on the subject at home or abroad. The society was notified several months in advance of the subjects of the valedictory, which was received as a pleasantry rather than as a matter of scientific interest; and so, I was nick-named "The Forces." Though frequently inquired of about "The Forces," nothing was said in reply but *badinage*, until the valedictory was read. It was received with much surprise; though the members are remarkable for their general and professional culture. In subsequent papers read to the society, or published, correlation of force has been pushed into practical medicine farther than by any other, no matter what his position in the world of science and letters, known to me, on either side of the Atlantic. Many other circumstances gradually led me, step by step, to resolve the mystery of life to my own satisfaction. It was made clear to me that the human body was composed of ordinary elements, which are well known, and controlled by forces equally well known, save in one particular..

A germ of the wheat plant; a soil, with moisture, light, heat, and the atmosphere, supplied the conditions for its growth and multiplication very many fold. Its seed, after undergoing sundry mechanical processes of grinding, sifting, &c.; and then some chemical alterations, arrested at a certain stage by heat—baking and *bread*, "the staff of life," is the result. Of this staff of life, man and beast, reptile and bird, fish or insect, mollusk or worm might partake, and with similar conditions surrounding, to-wit: light, heat and moisture, with the occult chemistry and dynamics of organic life, the wheaten loaf formed tissues for all. It was to the mode of force which thus, out of the wheaten loaf, constructed the tissues for all, that the term "formless" or "organizing" was suggested and applied, because the wheaten loaf was certainly "formless" protoplasm—the first matter or "physical basis of life,"* and that the form which it should assume when eaten by a living being, depended solely on what that living being should be; whether man or beast, bird or fish, reptile, worm or insect; black, or white, or poly-colored, deformed or symetrical, old or young, learned or unlearned, civilized or savage; and as each had its own specific forms, the power or force which gave these forms would be accurately and scientifically expressed by the terms "form-force," or "architect of organization." And it appeared certain that the force

* Prof. Huxley, *Fortnightly Review*, Feb., 1869.

or power or labor, which assimilated the protoplasm—first matter of life—to each of these forms, was but a continuation of the ordinary physical forces of light, heat, &c., which had organized from carbonic acid, ammonia, water, and the earthy and saline constituents, the wheaten kernel or germ; and as the potter had power over the clay to make one vessel or form for one purpose, and another, out of the same clay, for another, it was evident that in all forms, whether organic or inorganic, there was a necessity for the laborer and architect; that though there were sometimes, and exceptionally, combined in one person, as in the potter, making the forms of his own fancy or design, they were, in reality, in the construction of organic forms, separate modes of force, or there would be no protoplasm, or first matter of life for all—hence, in substituting for the term vitality—which is apparently single, and without definite meaning, in fact used to cover a vast mass of ignorance, and repel investigation, two terms, expressive of exact and definite modes of force, the matter to my mind was greatly simplified; though Dr. Jones thinks that the multiplication of terms has, to him, added complexity. But it does seem to me that two terms, with definite meanings, expressive of exact facts or laws, are more simple than one term without definite meaning. And this was all the more conspicuous in reasoning them, through to consequences. Thus, over the formless or organizing force, therapeutic agents unquestionably have influence to promote or retard its operations in many ways, as by low temperature and rest, the velocity of tissue waste and repair are reduced to their minimum; while high temperature and physical labor, run both up to their maximum, as exemplified by laborers in harvest fields.

But the matter of form is beyond the control of remedial agents. Two weeks since it was my privilege to assist at the post-mortem of a child twenty-two months old, from whom was taken what was once a mesenteric gland, but then was a formless mass weighing eight pounds, though the entire little patient, tumor and all, weighed only twenty-two. Here was eight pounds of organic matter out of normal form in a child's abdomen, and was the occasion of its death partly by mechanical pressure on the remaining contents of the abdominal and thoracic cavities, and partly by the appropriation of so much of the protoplasm eaten by the child, to the growth of the abnormal form.

It adds nothing to our knowledge to say that it was a cancerous mass; for what does the word cancer mean? Why, something malignant and awful—that is all. The tumor was constructed out of the

same first matter of life as the tissues of normal form, and by the same organizing or formless force. These are the facts; then why not say that the normal type or form was lost, and that therapeutic agents to restore it are unknown, *i. e.*, over that mode of force giving and preserving forms, amidst the ceaseless molecular changes of organic tissues, we can, by remedial agents, exercise no control. To designate such, the term was suggested, because it expresses definitely its purposes and results in organic life; and, as in the child's case, organization went on, producing tissue or structure of one uniform type foreign to the body, the term formless was, in like manner, suggested, as expressive of its purposes and results. The little patient had therapeutic agents given to retard the operations of the formless force, which probably prolonged its life many days; but, as they had no power to restore lost forms, the little sufferer passed away. Therapeutic agents can and do promote or retard the operations of the organizing or formless force; but cases of lost forms are given over to the surgeon, whose sole power lies in their removal or destruction; and in some cases, as in that of the little child, he, too, is powerless.

It does seem to me, therefore, that my substitution of two forms, with definite meanings, for one without, signifies my conceptions and ideas of organic life. For its mystery, apparently, lies solely in its forms. The same formless "first matter of life," being used to construct all organic forms, whether in man or beast, reptile or bird, fish or worm, mollusk or insect.

This explanation and justification for my new terms and division of the forces of organic life, would be esteemed invulnerable, were it not that the difficulties of "communication,"* so graphically set forth by Mr. Wasson, are remembered and realized. These, like the story of the Englishman and janitor, remind me that, certainly, not this side of the millenium, will we all see or think alike. But to me these definite conceptions of the forces of organic life, throw a flood of light upon my ministrations to the sick, and explain intelligible formulæ the separate provinces of the physician and surgeon in the management of the "disarrangements" of the human body. The science, skill and art of the surgeon certainly falls outside of the "healing art," for to him pre-eminently belongs the province of destruction, *secundum scientiam;* while to the physician is committed the oftentimes difficult task of "promoting here, restraining there, and so bringing about that equilibrium of the forces of life which constitute health."†

Atlantic Monthly, October, 1864.

† Bence Jones.

In disposing of Dr. Jones' objections to my classification of the forces of organic life, it may be proper to say that the organizing or formless force, is certainly a co-relation of the ordinary physical forces of light, heat, &c.; and is to be regarded as the laborer—and that the form force is the architect—the giver and preserver of form with the momentarily changing material of organic tissues. And that these relations of laborer and architect are constant and unchangeable, so far as purposes and results are concerned in organic life. That a disturbance of their natural relations constitutes disease—that is to say, where form is preserved, but repair arrested, or where form is lost and repair continues—the one medical, the other surgical, but each tending to death.

In the consideration of impending death, or death forces over doses of chloroform, in my former article, they were considered entirely from a dynamical point of view. When enveloped in the muddle heretofore spoken of in regard to organic life, and the relations of therapeutic agents to organic structures, such terms as "asphyxia," "spasms of the glottis," &c., &c., had to satisfy me as to how these conditions were brought about. But when held down squarely to consider and realize that the acts of the circulation and respiration were due to some mode of force, and that in the act of their accomplishment force was not destroyed, but correlated in some other mode of force, it was found necessary to leave them entirely out of consideration as too loose or indefinite for the expression of the solution of any dynamic problem. The acts of circulation respiration require power. Where does this power come from? Physiology points to the nerve masses (not nerves) as the source. Pathology shows that it does not reside in the nerves, and further shows, that the nerves are only conductors of force.

Again, force depends always, whether in organic or inorganic natures, upon change of matter. Thus, the natural forces available to man for mechanical results, are gravity—as full of water, gravity in every such instance being correlated in heat, though compelled to turn round mill-stones before it is dispersed as heat. Currents of wind—heat being correlated as mechanical motion. Combustion—chemical affinity—complex organic compounds retroceding to simple states—the heat correlated in organization, reappearing during their oxidation or combustion.

So, also, in organic nature. All animal life depends for food, at last, on the vegetable kingdom. As inorganic elements are advanced

in organization, light and heat are correlated, consumed, or disappear, and form part of the organization itself. That is to say, a grain of wheat represents so much C. H. N. O. S. P. + light and heat. Upon the return of these elements to their states in nature, the heated correlated in its organization, reappears. If it were not the law that all organic compounds represent their inorganic elements, plus heat, gardners could have no hot-beds from the slow oxidation of refuse vegetable matter, as manure, grasses, &c. Hence the formulæ, "for every dynamic result, there must be change of matter."

The circulation and respiration being dynamic results, require power or force for their continuance. That force depends on change of matter; and death by chloroform is certainly due to an arrest of the changes of matter, which furnishes the forces for each, in all instances whatever. Dr. Jones objects to the formulæ that death by chloroform is always due to paralysis of the lungs, or heart, or both. What is paralysis? Can it be anything else than a suspension of the power necessary for the performance of their functions? Then, again, force in organic life always depends on, or it is due to, oxidation. How can oxidation be carried on without oxygen?

Dr. Jones speaks of the "respiratory sense," by this, perhaps, meaning the "hunger," as it were, of the capilliaries for oxygen. As this was not alluded to in any way in my article on the conversion of gravity into organic force, it requires no notice here.

The remainder of Jones' physiology is, to say the least, a little "foggy." My understanding is, that destructive metamorphosis in the living body, for the production of dynamic force, can only take place where oxygen is supplied; and that atmospheres of nitrogen and hydrogen, or either, are incapable of oxidising any organic substance whatever.

Dr. J. may be sure that the reign of law is supreme in the human body, as well as all organic life, and that nothing occurs by chance, or outside the pale of law. Chloroform is sometimes the immediate occasion of death. For it must not be forgotten that we are all due, or owing, each for ourselves, to death. (*Debemur morti nos nostraque.*) Before death, in such cases, the heart and lungs cease their play; in my experience in impending death, (never had a death from chloroform), sometimes one, and sometimes the other fail first, and the failure to perform their acts is certainly due to want of power or force.

In the study of dynamics, force must be traced through all its correlations, or modes, always remembering that it can neither be in-

creased or destroyed. If one mode of force disappears, another re-appears; for the forces of light, heat, chemical affinity, gravity, &c., are all convertible into each other, and each into all.

In the arrest of the circulation by cloroform, heat, and its correlative, mechanical force, disappears, and gravity re-appears, as shown by the blood settling to the most dependent portions of its circuit in the body. By depressing the head, before the blood has coagulated, gravity takes it to the brain and lungs and nerve masses; and, as in Dr. Mobley's case, disappears, organic force reappearing. Can anything be more plain, or more certainly demonstrated?

Permit me to say, in conclusion, that I thank Dr. J. for the opportunity he has afforded me to explain the modes by which the results stated in my former article were reached. Facts I know, and law I know, but symbols, as asphyxia, in the solution of dynamic problems, I reject. Nor should it ever be forgotten that the terms used in science are symbols. Facts will live forever. Symbols may and do change. It is a melancholy fact that chloroform has, apparently, terminated life. The symbol, asphyxia, has served its purpose, and must give way to some other term more definite. When a better formulæ, or one better expressive of the facts and laws concerned in the dynamics of anæsthasin, death, and impending death from chloroform, than "arrest of destructive metamorphosis," is presented to me, all possible haste will be made in adopting it, and consigning my own to oblivion. But, until then, I must hold that "arrest of metamorposis" fairly represents the facts and law dynamically, as presented in death from overdoses of chloroform.

A MEANS OF MAINTAINING AN ARTIFICIAL OPENING IN THE MEMBRANA TYMPANI.

BY DR. ADAM POLITZER.

(Translated from the *Wiener Medizinische Wochenschrift*, of April 21, 1869, by T. F. Rumbold, M. D., St. Louis, Mo.

Towards the close of last year I reported in this journal a method of maintaining an artificial opening in the tympanum of the ear, which succeeded in a case of great deafness in improving the hearing in a very high degree.

The method consisted in using a hard rubber eyelet with a groove

formed around it, so that the rim of the perforation of the tympanum closes upon it, thus holding it fast and allowing the air to freely enter the tympanic cavity. The report alluded to was made six weeks after the operation, and a considerable time has elapsed. I will give a further history of the case, and will follow it by a number of other cases since operated upon. As I suppose the history of this case and operation is only known to a part of our readers, I think it for the better understanding of the case to give a synopsis of it.

A woman, aged forty-eight years, of Vienna, suffered two years ago with an acute inflammation of the middle ear, on the left side, causing a perforation of the tympanum. After the flow of the secretion stopped, the hearing was not very bad, but at the same time she could, at will, force the air through the ear. Suddenly she became very deaf, and had a continual loud noise in her ear, at the same time she noticed her inability to force air through the ear. The examination of the tympanum showed a cicatrix in the place of the perforation. This was situated under the manubrium, oval in shape, horizontal in position, one line long, and one-half line high (wide), thin and sunken inward. A strong cylinder watch was heard only when pressed against the ear, and conversation about three feet distant; after the inflation of the middle ear, the increase of the hearing of the voice was only one foot.

I had, in this case, anticipated difficulty in the sound-conducting organs, the mallens and incus, which has formed adhesions to the wall of the tympanic cavity, caused by the previous ulceration. I was led to this conclusion by the symptoms given by the patient, who said, as long as she could force the air through the ear she was in but a small degree deaf. During the existence of the perforation, the sound-waves could pass into the tympanic cavity and strike upon the stapes, and from there to the labyrinth; but after its closure, this opportunity for reaching the labyrinth was cut off, and deafness followed. All this went to show that the indication for improving the hearing, was to open again the previous perforation; but up to this time our experience teaches us that all artificial openings soon close by cicatrization. For the prevention of this closure I used the hard rubber eyelet above described. An opening through the cicatricial tissue was made with a paracentesis knife; the eyelet was then placed into this opening by a very slender pincette. The watch which, just before the operation, required pressure to the ear, was now heard nine inches, and the voice forty feet instead of three feet.

This operation was performed on the 26th of October, 1868. During the interval I have had frequent opportunity of examining her, and of presenting to my hearers in the hospital. The patient, during these examinations, has experienced no pain, nor the feeling of anything in her ear—the tinnitus aurium has entirely left. The distance that the watch is now heard has increased to twenty-two inches, and the voice, in conversation, to sixty feet. As is seen, the hearing was not only restored to a great degree immediately after the operation, but has been improving ever since.

One thing worthy of notice is, the changing of the position of the eyelet in the tympanum. It has moved backward one and a-half lines from where it was originally placed. By examination, the cicatrix can be seen under the manubrium, and the eyelet at the distance firmly clasped by a part of the tympanum that is not composed of cicatricial tissue. A dark gray line reaches from the original perforation to the eyelet, showing the way or track that it took to where it now rests. The reason for this movement I am not at present prepared to give, but must make more observations, before coming to a definite conclusion.

The utility of any method can not be decided by one trial—only the result of several cases can give satisfactory proof of its value. I have here reported this case of six months standing, and although the hearing has been certainly improving since the operation, yet, I consider the period too short to come to a decided conclusion. For that reason I thought it better to postpone the complete report of the last cases operated upon, and give what general experience I have gathered from them.

The opening is made through the tympanum with a strong paracentesis knife, bent at a right angle; where the space in the meatus will permit it, the opening is made under the manubrium, or in the posterior quadrant-membrane, and where the meatus was too small or the curvature too great, it was made in the anterior quadrant-membrane; but this last place was not profitable, as in two cases the eyelet came out by suppuration, which was supposed to be caused by the eyelet pressing on the incus, which is only a small distance behind this. To enlarge the opening in the tympanum, I used a *laminaria stabcher*, two lines broad by one-quarter line wide, very carefully rounded and smoothed at the end. This was dampened and passed one-half line through the opening into the tympanic cavity. The inserting of this was more or less painful, as well as its swelling, and the withdrawal of it. It must not be neglected to put in a few drops of water immedi-

ately after the insertion, to cause its even swelling, and the less painful extraction. In one case where the point only of the laminaria was dampened it swelled in the cavity, causing much useless pain to the patient when it was extracted.

In a few cases there was very little excess of secretion after the withdrawal of the laminaria. In all normal and thickened tympanums, there was only a slight swelling around the perforation, or of the whole tympanum. In one of the cases the entering of the opening by the laminaria caused considerable pain and swelling, which lasted even through the following day; but on the next day all this passed away. On examination of the ear, I found the eyelet was in its proper place, and has remained thus. This was three months ago, December, 1868, since then there has been no scretion or inflammation, while the hearing is constantly improving. It was the easiest to put the eyelet in a tympanum where there was a cicatrix or an atrophy. In such cases it was entirely unnecessary to enlarge the opening with the laminaria; the use of a small probe was enough to open it, or even to push the eyelet in without it.

The pincette that I used to place the eyelet in position is a very small one, made by Leiter of Vienna, after my pattern. This was so constructed that it closed itself, and required pressure on the branches to cause the points to open or spread. On one of the branches, near the extremity, was a very small point, to prevent the eyelet from slipping too far on the pincette. The points of the pincette were inserted into the whole of the eyelet, and pressure on the branches caused the points to separate, thus holding the eyelet until inserted in the opening in the tympanum, after which the pressure is relaxed, the points withdrawn from the eyelet. I succeeded in one case in inserting the eyelet, on the point of the paracentesis needle, in its place in the tympanum.

The changes that follow the insertion of the eyelet are of great importance. Several cases lately operated upon, have carried the eyelet for several weeks without any inflammatory signs; but in some there was, on the second or third day, some inflammation of the tympanum, at the same time purulent discharges from the cavity; and in some of these cases the eyelet was washed away with the syringe. Thus far it has appeared that in quite the larger number of cases the eyelet caused no serious reaction on the tympanum or its cavity.

I must here call attention to one circumstance, which is of importance in showing one of the causes for inflammatory reaction. I found

in two cases were the eyelets were washed out, that on close examination of the inner end of the eyelets, they had a fine sharp point, which must surely have caused the irritation of the mucous membrane. This point was caused by breaking off the eyelet from the tube from which it was made. Great care must be taken that all roughness must be polished down.

It frequently happens that the secretion of the cavity will fill the small hole in the eyelet. This must be taken away by a drop of glycerine, and the use of a small stiff brush.

The details of the treatment of those cases shall, in a short time, be given in full.

SUCCESSFUL REDUCTION OF A DISLOCATION OF THE HIP-JOINT BY MANIPULATION.

REPORTED BY W. R. THOMPSON, M. D., VANDALIA, O.

April 9th, 1869, I visited a patient in conjunction with Dr. H. B. Nunemaker, for the purpose of reducing a dislocation of the head of the femur, of three days standing. Our patient, a boy, aged sixteen years, muscular and healthy, had been playing with a colt, which became unmanageable, running violently against him, dislocating the head of the femur upward and backward, upon the dorsum of the ilium. The injured limb lay in a semi-flexed position, the heel abducted and the toe inverted, resting on the instep of the opposite foot. Measurement revealed about an inch and a half of shortening. The patient was put under the influence of chloroform, and the dislocation reduced by manipulation, (Reed's method). The first effort we made the head glided from its bed; the circular movement brought it under the acetabulum, converting it into a sub-pubic dislocation. The movement was then reversed, which brought the head of the bone to its first position in the dorsum ilii. The limb was again brought across its fellow, and the circular movement carefully made, at the same time guarding the head of the bone from passing around the socket. To our gratification the head passed in with an audible snap, the limb assuming its normal position. No shortening. The patient was then placed in the horizontal attitude, the injured limb secured to its fellow by means of a roller extending from the ankle to the knee, as recommended by Professor H. H. Smith, of the University of Pennsyl-

vania, in his work on the Principles and Practice of Surgery, page 738, vol. I. On the following day, on our visit, the hip-joint was found to have been dislocated during the night. The boy, contrary to most positive orders, had attempted to raise himself up in the bed, and at the same time turning partially around, threw the head of the bone out; the leg assuming the same position as when we first saw it. Again the patient was placed under the influence of an anæsthetic, and the luxation reduced as in the first operation. He was then secured firmly by means of a splint and bandage to the couch in which he lay, in order to guard against a second luxation. In this secured position he lay for seven days, doing well, except some slight peritonitis occasioned by other injuries received in conjunction with the first dislocation. During the night following the seventh day, he loosened the bandage which held his shoulders and body to the bed. Finding himself again free, his first impulse was to get up. (He seemed unable to appreciate his condition.) In this attempt he again threw the head of the bone out of the socket. This, in our opinion, was easily accomplished. In the first place, there was an extensive laceration of the capsular ligament, allowing the head to glide easily from the socket; and secondly, the limb in its secured position to the splint and bed, with the shoulders and body free to move in the direction of the erect posture, and to the right. These movements would, under the circumstances, certainly produce a dislocation (the left limb being the injured one). At our request, Dr. J. C. Reeve, of Dayton, Ohio, was called in council, in order to fortify ourselves against any subsequent trouble, in a legal point of view. The patient was again anæsthetised, and Dr. Reeve thought, upon first examination, there might be a fracture within the capsular ligament; but, upon further investigation, coincided with our previous diagnosis. We then proceeded to reduce the luxation in the manner before mentioned, and with similar success. At the Doctor's suggestion, the splint was reduced in width from five inches to three, and not to be secured to the bed, and the toe was everted to about seventy-five degrees—the foot abducted about four inches from the normal axis of the leg—the body was secured to the bed as was previously done. In this position he lay for three weeks, after which time the splint was removed and passive motion induced.

At the time of writing the above, the boy is able to walk without crutches, though there is still some lameness—the foot is still in an abducted position, with the toe everted, giving him altogether an awkward appearance.

In this case the difficulty did not consist in the reduction of the dislocation, but in retaining it in its normal position after reduction; and it is our opinion the injured limb should always be secured with a splint, the normal axis of the leg maintained, and the toe but slightly inclined outwards. It will be seen that the splint, in this case, was left on somewhat longer than would be required in the majority of cases.

HYPODERMIC MEDICATION.

BY C. B. MILLER, M. D., OF LAWRENCEBURG, IND.

Having employed hypodermic injections in the treatment of disease quite extensively for the last four years, I am induced to give your readers the benefit of my experience—hoping it may disperse some of the clouds of unbelief that hang over many of our professional brethren, and induce them to make a trial of this very valuable therapeutic means.

In many diseases the first indication is the relief of the distressing pain that harasses the patient; and in proportion as we do this, we arrest the wear and tear upon the system. That this indication is best met by this method of medication is shown by its superiority over all others in the facility with which it may be employed, the rapidity and certainty of absorption, and consequently of action, and the knowledge of the exact quantity entering the circulation.

I will give briefly the history of a few cases.

CASE I—Was called in the evening of May 21st, 1866, to see M. W., æt. sixteen, who has been a cripple for several years from caries of the femur—the result of an injury. His only suffering now is from neuralgia, the inflammation having subsided and the sinuses all closed up—the pain of which has made life a burden for the past six months, and is willing to submit to amputation of thigh for relief. Injected one-third grain morph. sulph. over seat of pain with effect to relieve it entirely.

May 22—Evening—Slept well last night, and has been comfortable all day. Gave another injection, as he feels slight pain.

June 4—has been able to walk around, and free from pain until last evening, when it returned slightly after exposure. Gave another

injection, and he had no further return within the next year while under my observation, although at work daily.

Case II—Dr. H. has been suffering with sciatic rheumatism, to which he has been subject for years, for two days. Persuaded him to allow me to inject morhia sulph., one-fourth grain over seat of pain, which relieved it almost immediately. Two days later, felt some symptoms in opposite hip—after getting wet. Injected one-third grain morphia in that with same result as before. Two years have elapsed, and he has felt nothing of his old torment; and it is almost needless to add, is a strong advocate of hypodermic medication in neuralgic affections.

Case III—Mrs. A. Y., called at my office January 22d, 1867, complaining of facial neuralgia, which has been torturing her for several days—not periodical. Has tried various remedies, but none have afforded relief. Injected one-fifth grain morphia in arm, and the pain almost immediately subsided. Repeated injection two days subsequently, which resulted in a complete cure. The first injection in this case occasioned nausea but no vomiting, and a swelling resulted from the last, but disappeared in a day or two without treatment.

Case IV—Was called early on the morning of November 4th, 1866, to see Mrs. G. N. Found her in the most terrible agony, caused by a cramping of the muscles of one side of the neck, paroxysms coming on every two or three minutes, when her screams could be heard two squares. Pain came on suddenly while assisting her husband to rise in bed—he having acute rheumatism. Relieved entirely and permanently by the injection of one-third grain morphia in arm.

Case V—S. W. has been suffering for two days from sciatic rheumatim, brought on by exposure to wet and cold. Called at my office December 7th, 1866—scarcely able to walk. Injected one-fourth grain morphia over seat of pain—complained for a few minutes of burning, occasioned, and felt slightly nauseated, but all unpleasant symptoms passed off in a few minutes, and he walked out feeling as well as ever, and has had no return of it, though often exposed to the inclemencies of the weather.

Case VI—December 26th, 1866, was called to visit Mrs. S. W., and found her suffering severely with sciatica. Has been troubled with menorrhagia. Injected one-fourth grain morphia over seat of pain, which immediatly relieved all pain, when remedies directed against her other symptoms, and tonics to improve tone of system effected a complete cure.

CASE VII—Mrs. C. G. called at my office May 6, 1868. Has been suffering for several days with neuralgia of supraorbital nerve—is rather anemic, and troubled with derangement of stomach. Injected one-third grain morphia in cellular tissue of arm, which relieved neuralgia, though it produced severe vomiting and great prostration. Gave tonics to improve general health, and she has never suffered since.

CASE VIII—May 21th, 1867, was called to see Mr. J. S., who has been suffering all night with tic douloureux; pain so severe he has been walking the floor for several hours. Gave him an injection of one-third grain morphia, and pain subsided in a few minutes, and has never returned. In this case he had been suffering for several days, but not in the agony in which I found him. He complained a little of the pain of the instrument, but says he never experienced such decided relief from pain so quickly before.

I could go on and amplify cases from my note book, but I have already occupied too much of your space, and certainly enough has been said to convince any one open to conviction of the utility of this agent. I have tried and seen the syringe employed in eclampsia with decided benefit; but have not sufficient experience to state whether it will always act beneficially in that dreaded disease. I have not injected any other medicine than morphia sulph, under the skin, and should be very careful about doing so. I think its chief usefulness is confined to the administration of anodyne remedies. I never employ more than one-third of a grain at an injection, preferring to repeat it to incurring any risks from an overdose. I have never had an abscess result from its use, nor any other serious affection.

DYSENTERIC ARTHRITIS.

The *Archives Générales*, of August, contains an article with this title, by Dr. Huette. More than a century ago this form of disease was recognized by Zimmerman and others. Most of these observers, however, explained it as occurring from metastasis.

Dr. Huette terminates his elaborate paper with the following conclusions:

"1. There is a variety of arthritis having its sole and necessary cause in an epidemic phlegmasia of the mucous membranes of the rectum and of the colon.

"2. This rheumatismal manifestation does not occur in every epidemic of dysentery; it is subordinate to the influences of a peculiar medical constitution: individual diathesis may favor its development.

"3. Dysenteric arthritis, essentially apyretic, differs in its causes, in its progress, its general aspects, and its consequences from simple articular rhematism. It presents a great analogy with blenorrhagic rheumatism.

"4. Dysenteris arthritis almost always poly-articular, has a duration of several weeks or several months. It generally terminates by resolution—rarely by suppuration and anchylosis.

"5. Metastasis does not explain the appearance of this arthritis, as was formerly thought; it is more rational to attribute it to a morbid affinity, which, the mucous membranes being diseased, determines reflex pathological effects upon other tissues of the economy."

THE ADDRESS IN MEDICINE, DELIVERED BEFORE THE ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, AT LEEDS.

BY SIR WM. JENNER, BART., M. D., F. R. S.,

Physician to the Queen; Physician to University College Hospital, etc.

MR. PRESIDENT AND GENTLEMEN: There are special occasions in a man's life when it is well for him to review his mental progress, points in his life at which he does well to note his bounds—to look back over the road he has traveled, count his gains, the difficulties he has overcome, the advances he has made; and so, by a pause in his labors, be stimulated to new efforts, gathering from the retrospect good hopes for the time to come. The same is true of a profession. Its members should from time to time look back to their earlier days; scan the advances their profession has made; compare what it is now with what it has been, and weigh the worth of its reputed progress. There are special reasons why the members of our profession, the practitioners of medicine, should from time to time sum up the gains which medicine has been making as a practical art. For in the daily practice of our profession so much occurs to damp our spirits; so many cases of difficulty arise in which the remedies of our art are doubtful; so many cases in which the practical difficulties in the way of diagnosis are insuperable; and so many cases in which, the diagnosis being clear, we know that we are impotent to cure; so many cases in regard to which our apparently well-founded expectations of affecting a cure prove vain, that even the most hopefully minded must be permitted to doubt if medicine be advancing as a practical art. Many entertain scepticism as to the value of medicine as an art, and especially as to the remedial power of drugs. "I trust you will not cast a doubt on the efficacy of medicine," said a distinguished member of our profession.

"They don't believe much in medicine at this hospital," wrote a reporter to one of our medical journals. I desire to repudiate scepticism in regard to medicine. I believe as confidently in the power of the physician to treat disease successfully as I did when clinical clerk to one of the first practical physicans of his day. Extended knowledge and accumulated experience have only increased my confidence in the remedial powers of our art. Nor do I believe that others upon whom the imputation of scepticism has been cast are less firm believers than myself in the value of treatment. Modern research has shown that a large number of acute diseases occurring in previously sound persons, have a tendency to terminate in the suspension of health even although no drug be given. This is fact—knowledge—not scepticism. Modern observation has also shown certain acute diseases, formerly supposed to be of indefinite duration, run a definite course—that is, end spontaneously at a certain date from their outset; and therefore the conclusions as to the efficacy of drugs to cut short these diseases—conclusions drawn before their definite duration was known—were formed upon false premises, and consequently were not trustworthy. All this is surely fact—knowledge—not scepticism. Again, advances in knowledge have frequently been attended by a more correct appreciation of the mode of action by drugs; and the expression of this has not unfrequently been most erroneously taken as an evidence of scepticism. Thus, if I believe that saline aperients do not act as formerly supposed they did—namely, by increasing the escape of the watery matter from the radicles of the portal vein, I am not in the least shaken in my belief that the symptoms which I attribute to overdistension of the portal vein are relieved by their action; or that their action is followed by a disappearance of watery fluid from the peritoneal cavity and from the cellular tissue. Again, if it should be considered, as proved by experiments on dogs, that mercurials did not produce increased secretion of bile in man, it would not throw doubt on the establishment of a great flow of a yellowish-green colored fluid from the bowel after the administration of a mercurial to man, and the relief of many depressing symptoms which follows. A man's bilious headache, as it is termed, would be none the less certainly cured by mercurial treatment, even though it should be shown to the satisfaction of the whole profession, that mercury does not increase the secreting power of the liver. Our mode of explaining certain effects in curative medicine would be changed, but not the facts themselves. My conclusion then is, that although with regard to the virtues of this or that particular drug, and the mode of action of this or that particular class of remedies, there is, no doubt, and always will be, difference of opinion—the evidence that satifies A. being insufficient, from the constitution of his mind, to satisfy B.,—yet with regard to the value of drugs in the abstract, and the value of treatment, there is really little difference of opinion amongst physicians well informed as to the present state of medical knowledge, and of equal experience in practice. I say amongst men equally well informed: let me illustrate my meaning. I was one of three who met in consultation concerning a case of apoplexy. In the opinion of one of my colleagues, the only

treatment to be adopted was as follows—namely, to place the patient in a recumbent position, with the head and shoulders raised; to enforce absolute rest; to keep the bowels so far loose as to prevent straining; to apply cooling substances to the head in the event of heat of the part occurring; and to support the patient with light nutritive food, having regard to his habits. The third gentleman protested against the modern system of doing nothing—was anxious to bleed, to purge, to blister, &c. Now the difference of opinion in this case was not due to scepticism; but on the one side to justifiable faith—that is, faith justified by knowledge; and on the other to absence of that knowledge. The case was one of degenerate change—retrograde metamorphosis—of arteries. One had become so rotten that its wall had given way—its contents had escaped—a clot had formed, and by its mechanical effects given rise to the symptoms. The heart shared in the degenerative changes. The bleeding had ceased. To those who understood the real nature of the case, the lesions present, and the mode in which they had been produced, in short, the pathology of the case, belief in the efficacy of so-called active treatment appeared to be not only unjustifiable faith—foundationless faith—faith without knowledge, but to be faith in opposition to knowledge—which in medicine is the worst form of scepticism, inasmuch as it implies doubt of truth, and a belief in error—doubt which might prevent the saving of life—a belief which, embodied in practice, might kill. The present appears to me to be one of those special occasions to which I have referred, when with advantage to ourselves we may look back, and survey the progress which medicine has made as a practical art in our own time—I mean the time in which the large proportion of those present have been engaged in the practice and study of ther profession. The time allotted to this address will not permit me even to enumerate the advances medicine has made during the past twenty-five years. I shall therefore limit myself to pointing out some great divisions in which some at least of the great practical advances of medicine may be proved; and to giving, as briefly as possible, such illustrations of its advance in each of those divisions, as seems to me to be sufficient to justify this assertion, namely—that having regard to the attainment of its practical aims and objects as an art, no science has advanced during the period in question more than the science of medicine. As an art I say; for while medicine is universally acknowledged to have advanced as a science, its progress as a practical art is frequently regarded as trifling, and on recent occasions has often been publicly denied by some. As I do not propose to enumerate all the advances in medicine, so neither is it my intention to refer by name to those by whom the great advances in medicine have been made. And with regard to the illustrations I shall give of the position I have taken—in fact, to all advance in medicine as a practical science—it must be remembered that it is rarely, if ever, that a great discovery or a great step forward has been the direct result of the labors of a single man. Almost invariably it has resulted from the successive labors of many men. And again, it must not be overlooked that in regard to all forms of advance as a practical art, the silent workers render the most effi-

cient aid—the results of their unspoken thought and vast experience confirming or refuting the published assertions of a few. It is to the experience of the mass of the profession that we look for the final establishment of doctrine and the rules of practice. In the selection I am about to make in confirmation of the statement that our science in its advance as a practical art stands second to none, I am conscious that I will pass some facts which others will think of greater value than those I have chosen as illstrations. But I have been guided in my choice first by a desire to avoid disputed facts and theories; and secondly, by consideration of those things which have aided me in the most frequently effectual manner at the bedside, when asking myself these two great questions which are always presenting themselves to the mind of the practitioner—What is the illness of the patient? and what can do him good? By thus limiting myself I feel that, while this address will more directly attain its object, it will be deficient in novelty and scientific interest, and thus be unworthy of its predecessors. For this I crave your pardon. Sir W. Jenner then proceeded to say that amongst the really great advances in medicine was to be placed the recent separation of degeneration from disease, and the recognition of the difference between old age, actual or premature, and the changes wrought by inflammatory and other morbid processes. He here dwelt upon our recent increase of practical knowledge in regard to diseases of the heart, with regard to the effect of fatty degeneration of its muscular fibres in weakening the force with which the blood is driven through the degenerated arteries—a statement which, when first made at an early meeting of the Pathological Society, was received with shouts of laughter by the members. The knowledge we have gained of the degenerative changes, has also enabled us to rightly appreciate the changes in the brain which followed on degeneration of the coats of the arteries. A second great advance in medicine had resulted from the discovery that an elevation of temperature is the only trustworthy sign of the existence of fever; and that elevation of temperature can only be correctly estimated by the thermometer. The index-thermometer ranked in importance with the stethoscope, and its value in the diagosis of typhoid fever, in cases of acute deposit of tubercle, and in prognosis, was also illustrated. A third great advance in our practical knowledge has resulted from our appreciation of the influence of various mechanical consequences of primary diseases, such as embolism, and the paralysis and other conditions which it produced. A case of death after tracheotomy in diphtheria was also discussed. Another class of diseases in which we had made great progress was that due to fluid blood-poisons, and to the causes by which blood-poisons were produced. Sir William went on to allude to the epidemics of 1817 and 1819 in Edinburgh, and Dr. Welche's work upon the value of blood-letting in regard thereto, as an evidence of the absolute necessity of the knowledge of a natural history of a disease before any attempt be made to form conclusions as to the value of particular modes of treatment. He also remarked on the gain which physicians had experienced from improved means of research—especially alluding to the value of the microscope in determining a great many diseases

and changes of tissue. Another great gain to modern medicine had resulted from the diffusion of more correct ideas as to the meaning of the word cure; and the distinction that ought to be drawn between curing a disease and curing the patient—a distinction which the speaker exemplified by saying that they might cure scabies by curing its cause, and in many cases they cured epilepsy in the same way; but in the case of ague or fever they cured a patient without curing the disease, and even by means the *modus operandi* of which we are really ignorant. Though the science of medicine had attained to such a degree of perfection, that the diagnosis of special diseases was perfect, and the prognosis in individual cases invariable correct, yet the public would have little practical interest in its spread. Practitioners would be engaged in solving puzzles, and in little more. The public aims and objects of medicine ought to be to prevent disease, to cure disease, to prolong life, and to alleviate physical suffering. Every advance in the correct definition of special diseases, and in the diagnosis of special diseases, was a step in the direction of advance in preventive and curative medicine. In illustration of the advances made in preventive medicine, I would adduce the fact that drinking water is one of the greatest agents for the spread of two of the most fatal and acute diseases of the present time—namely, cholera and typhoid fever. In the ten years ending 1866, twenty-one thousand, three hundred and forty-eight persons died from cholera in England and Wales, and one hundred and ninety-two thousand, five hundred and sixty-two from fever. From the Registrar-General's returns it is impossible to say precisely how many of the latter number died from typhoid fever; but seeing that that is the endemic fever of our country, and that typhus prevails as an epidemic only, and that only in limited localities and for a short time, we shall be within the limits of high probability when we say that one hundred and fifty thousand persons died of typhoid fever during the ten years in question, and that in no one year of the ten did less han ten thousand persons die of that disease. Now with reference to cholera, the special facts collected by Dr. Snow prove that one of the great agents in the diffusion of cholera, is drinking water, that every virulent local outbreak in a limited district was clearly coexistent with the pollution of the drinking-water supplied to that district, and that persons living at a distance, if by accident they drank of the polluted water, suffered as certainly as if they dwelt in the district specially affected. The conclusion which follows from the facts collected by Dr. Snow is, that, the conditions existing, be they atmospheric or otherwise, which determine an epidemic disposition to cholera, the presence of minute particles of cholera excreta in water supplied to a district for drinking purposes will be followed by an outbreak of cholera in that district. Careful investigations into the circumstances attending the local outbursts of cholera during the last epidemic have proved the truth of the conclusion. I will refer to two such special investigations in confirmation, viz., Mr. Radcliffe's admirable researches into the relation between the water-supply and the spread of cholera in London; and to Dr. Bellot's most conclusive observations on impure water as a cause of cholera in Holland. Dr.

Snow's investigations traced special individual cases and local outbreaks to one exciting cause. Mr. Radcliffe's researches bear especially on the influence of the polluted water in determining excess of mortality in a large district of a great city. Dr. Bellot's facts show that those towns and those parts of a town in Holland in which there was the greatest facility for the contamination of the water-supply by cholera dejections were those which suffered by far the most severely. The spread of typhoid fever by contamination of the drinking-water supply is, if possible, less disputable than is the spread of cholera by the same means. Every new investigation has added new proofs to the strong presumptive evidence afforded by Dr. Flint's cases. Solitary cases, outbreaks confined to single houses, to small villages, and to parts of large towns—cases isolated, it seems, from all sources of fallacy—and epidemics affecting the inhabitants of large though limited localities, have all united to support by their testimony the truth of the opinion that the admixture of a trace of fæcal matter, but especially of the bowel-excreta of typhoid fever with the water supplied for drinking purposes, is the most efficient cause of the spread of the disease; and that the diffusion of the disease in any given locality is limited or otherwise just in proportion as the dwellers in that locality derive their supply of drinking-water from polluted or from unpolluted sources. The proof seems complete, that a large proportion of those who drink water containing a minute quantity of the intestinal excreta from a person suffering from cholera will suffer cholera; and that a large proportion of those who drink water containing a minute quantity of the intestinal excreta from a person suffering from typhoid fever will suffer typhoid fever. These diseases occur like small-pox, scarlet fever and measles, *as epidemics*, owing to causes of which we know little or nothing; but, when epidemics, unlike small-pox, scarlet fever, and measles, a local outbreak of cholera and of typhoid fever will be determined by the impurity of the drinking-water. Had the water supplied to the east of London been as free from organic impurity as was that supplied to the west of London, the death-rate from cholera at the east would have been a little larger only than was the death-rate at the west of London. Had the drainage and water-supply of Winterton, Terling and Guilford, been what modern medicine has shown for health purposes they should have been, these places would not have suffered the terrible outbreaks of typhoid fever, of which the medical officer of the Privy Council gives such full details in the tenth volume of his inexpressibly valuable reports. The persons who died at these places of typhoid fever, and a large proportion of those who died at the east of London from cholera, were as certainly killed by the water they drank, and killed without need, as if the water supplied to them had been contaminated with arsenic. And I am sure we will all agree with the most distinguished medical officer of the Privy Council, that "the distribution of fouled water by the Guilford Board, is as proper a case for judge and jury on action for damages by any of the five hundred people who had typhoid fever in that town, as any case in which a railway collision brings some score of passengers into harm; and the fact that these water-purvey-

ors gave typhoid fever to their customers, would be brought home to their consciences, and be suggested as a warning to other water-purveyors in a far more conclusive and effective manner, by such legal proceedings than it can be by any departmental statistics and remonstrations." After referring to a number of authorities on this point, and speaking of the effects of cholera in London, Sir W. Jenner proceeded: With reference to the power of our art to alleviate suffering, how great is the difference between the medicine of to-day and that of our youth. Who that has suffered from a painful local affection can think of the alleviation of his sufferings which follows from the subcutaneous injections of an anodyne without gratitude? Who is there that has had to submit to the knife of the surgeon whose heart does not overflow with gratitude to those who introduced and perfected anæthesia? The electric telegraph, the greatest marvel of our time, was a thing which in a rough way scientific men had long thought possible; but to be cut for stone, and to know nothing of the agony, to have a leg removed and smilingly to ask when the operation is over—"When are you going to begin?"—these are marvels of which none dreamt; no exaggerations of fiction equal this reality. The discovery of the value of subcutaneous injection, of anodynes, and local anæsthesia by ice, ether spray, and of general anæsthesia by ether, chloroform, and nitrous oxide, are advances in alleviative medicine worthy to rank with the advances in preventive, curative, and prolongative medicine to which I have referred. Keeping in view, then, these practical matters, and the object for which medicine is esteemed by the public—namely, its power to prevent disease, to cure disease, to prolong life, and to alleviate suffering, I feel that I have said enough amply to prove the truth of my assertion that the progress of medicine as an art has, during the past twenty-five years, been second to that of no other science; while the present advanced state of medical education, the perfection of the means of physical research, the many new centres of knowledge being established in our colonial empire and in America, the widely-diffused acquaintance of the profession with modern languages; the rapidity with which knowledge spreads; the confirmation, correction, or refutation which follows so quickly on the publication of novelties; the great ability, the absence of prejudice, untiring energy, and truthfulness exhibited by the younger workers in the field of our science, render me hopeful that the next quarter of a century will be distinguished by far greater progress than the last.

After a few further remarks, Sir W. Jenner concluded amid loud applause.—*Lancet*, July 31st.

CORRESPONDENCE.

NEW YORK CITY, AUGUST 15, 1869.

DEAR JOURNAL: This summer has been with us, thus far, a remarkable one, both for its coolness of temperature and low mortality. We have not really had more than four or five days of excessive heat, and the city has been especially free from epidemics of any kind. If the mortality is as low for August as it was for July, in which month there were two thousand, six hundred and ninety-one deaths against three thousand, two hundred and sixty-seven, for July, 1868, a decrease of five hundred and seventy-six, or nearly eighteen per cent., this will have been one of our most healthful summers for a number of years. The Board of Health is exceedingly active in having tenement houses thoroughly inspected, and in abating nuisances. The total number of deaths in this city for last week was five hundred and ninety-one; of these, two hundred and sixty-two were from zymotic diseases, one hundred and twenty-four constitutional diseases, one hundred and fifty-one local diseases, thirty-two developmental, and the remaining fifteen were deaths from violence. Of the deaths from zymotic diseases, three were from small-pox; fourteen, measles; fourteen, scarlatina; four, diphtheria; six, croup; three, whooping-cough; one, typhus fever; three, typhoid fever; ten, cholera infantum; ninety, cholera morbus; twenty-one from other zymotic diseases; pulmonary consumption, sixty-eight; convulsions, twenty-four; pneumonia, twenty-two.

In Brooklyn, last week, the number of deaths was two hundred and twenty-four, of which, one hundred and thirteen were male, and one hundred and eleven female; of these, one hundred and sixty-one were under five years of age. The principal diseases were, cholera infantum, fifty; consumption, twenty-one; diarrhœa, eighteen; marasmus, sixteen; still-born, twenty.

Thus far, there have been but very few cases of sun-stroke occurring in our city this season. During the summer of 1866, while we were on the medical staff at Bellevue Hospital, there were a large number of cases of sun-stroke admitted to that institution, an abstract of which we published in the *Medical and Surgical Reporter* of Phil-

adelphia, of October 12th, 1867. Just at this particular season, it may not be inappropriate to repeat here what we then reported:

"There have been sixty-three cases of sun-stroke admitted into the hospital this summer. Fifty one of these were admitted during the month of July; fifty-three were males; ten were females; forty were fatal; twenty-three recovered; twenty-two were moribund when admitted, being unable to swallow, and dying within four hours after admission; about forty-five were comatose when admttted; about three-fourths were complicated with diarrhœa, and a few with vomiting; there were rice-water discharges in three; constipation was not marked in any case; the pupils were much contracted in about seven-eighths of the cases; in the remaining one-eighth they were dilated; the skin was intensely hot in all cases except two, in which it was cool; there were convulsions in twelve cases—one of these proved fatal, one case was followed by subacute meningitis, and proved fatal.

"TREATMENT—*Stimulants* were tried in six cases, but seemed rather to do injury than good—all of these died—cold to the head, and friction with ice were used in connection with the stimulants. *Chloroform* was given in drachm doses in one case with apparent benefit at first, but the patient subsequently died. *Blood-letting* was employed in three cases with no benefit—the patients all dying. *Bromide of potassium*, with cold to the head, and alternation of heat and cold to the spine, was employed in eleven cases, five of which recovered. In one case, the bromide was given and the patient wrapped in a blanket wrung out of hot water; he recovered. In another case, the hot blanket was used in the same manner, with the effect of rousing the patient from a state of coma for a moment, but he ultimately died. No bromide was given in this case, as the patient was unable to swallow. In one case, bromide was given in connection with the cold douche. In this case there was opisthotonos and greatly dilated pupils. The treatment seemed to relieve at first, but the patient ultimately died. In most of the cases, the bromide seemed to act as a powerful diuretic. *Autopsies* were obtained in seven cases. The *brain* was much congested in six of these cases; in one, it was apparently healthy; in five, there was a moderate amount of serous effusion beneath the arachnoid and into the ventricles. The *lungs* were very much congested in every case. The *heart* was soft and flabby in four, healthy in three. In five, the whole *intestinal canal* was very much congested, and presented numerous spots of ecchymosis. The mesenteric, solitary, and agminated glands, were much enlarged and vascular. There were points of ulceration in the large intestine in two cases."

The new Lunatic Asylum to be erected on Ward's Island by the Commissioners of Public Charities and Correction, is intended to accommodate six hundred patients, and the erection will be commenced forthwith. The Asylum on Blackwell's Island now contains over twelve hundred patients, with proper accommodations for six hundred only. The Commissioners are afraid that if insanity keeps on increasing at the present rate, the new Asylum will soon be insufficient for the accommodation of lunatics.

A public exhibition was given in the harbor, sometime since, of the

improved life-saving appliances patented by Captain J. B. Stoner. The advantages of the life-boat were first put to the test. The improvement claimed in this is the ballast—a weight attached to the end of a lever, which can be almost instantly lowered to a depth of twelve feet, more or less. When not in use, this weight is raised up so as to form a part of the boat, similar to a center-board. The test was made by nine men getting into the boat, filling it completely with water, and attempting to upset it by all getting on one edge. Though the edge of the boat was thus carried beneath the water, it righted itself instantly when the weight was removed. The life-preserver was next exhibited. This consists of a cork jacket, not visibly differing from those which have for many years been in use on vessels, and of a water-proof dress of rubber-cloth, which envelopes the whole person except the face. Rubber paddles for facilitating progress in the water, are provided for the hands. The prominent feature in this apparatus consists of two weights, of five pounds each, attached to the feet. These are designed to keep the body upright in the water. In addition to these means for keeping the body from sinking, he is supplied with a water-tight tin can, having considerable buoyancy, and containing fresh water, concentrated meats, matches, stimulants and sky-rockets for night-signals. This can is furnished with the ballast, which can be readily lowered, and which keeps it "right side up" in the roughest sea. Captain Stoner and Dr. Smith rigged themselves in their floats, weights and impermeables, and plunged into the sea. The time required to dress was at least fifteen minutes. After the men got in the water, the performance was beautiful; Captain Stoner and his companion displayed a red flag, ate and drank from their stores in the can, lighted a cigar each, and had a social smoke. Finally, having drifted several hundred yards from the steamer, they sent up signals of distress, in the form of sky-rockets and roman candles. This exhibition was quite satisfactory, and the signals being observed by the men in the life-boat, (which, in the meantime, had been rigged as a sailing vessel), they came to them and picked them up.—(*New York Tribune.*)

Since the above performances took place, Captain Stoner has perfected the machinery of his boat, and a few days ago a new trial with it took place. Seven persons got into the boat and tried to upset it, but failed. Then they filled it with water, and attempted without success to capsize it. The Captain then gave another exhibition of his life-saving apparatus. He stood upright in the water, hoisted his

day-signal, called "Eureka," burned roman candles and smoked a cigar. * * * * * * * * * * *

The *Medical Record* announces two prizes offered by Prof. Louis Elsberg, of the University Medical College, and free to be competed for by all medical students. One prize is offered for the best illustrated report of the clinic of diseases of the throat at the University, and the other for the best anatomical preparation of the pharyngo nasal space.

Yours, very truly,

JAMES B. BURNETT, M. D.

PARIS, AUGUST 8, 1869.

The ruins of but one building in Paris remain from the days of Roman conquest and occupation, the ancient Palais des Thermes, founded towards the close of the third century. Here it was that his soldiers proclaimed Julian emperor in 360. Nothing stands now but the baths, a good miniature representation of their colossal prototypes of Rome.

The subsequent dynasty, which expelled the Roman, the Merovingian, under Clovis II., leave us, also, one building still preserved, and since many times enlarged. It stands on the island in the Seine, where the city first existed. Histories are written of the building. It is the oldest of its kind in Europe, unless China can antedate it, in the world. Generations have entered and passed away; dynasties have flourished and faded, monarchy, republic and empire, with almost all the vicissitudes of ancient Rome; the reign of tyranny and the reign of terror have swept over it, and it has stood, as it stands to-day, through all that more than millenium of time. The ravages which did not spare the great Cathedral opposite, but which converted it, mutilated and defaced, into a so-called Temple of Reason, did not desecrate a single stone of its composition. The fanaticism of priestcraft, which wreaked its cruel vengeance on that fearful night of St. Bartholomew; the fury of an enraged and insane mob, which did not hesitate to spill the blood of their very king and queen, in erasing every existence and emblem of royalty, never laid a violent hand upon it or any of its inmates. Prisons were demolished; convents and monasteries which, protected by the puissant hand of papal authority, covered a third of the best sites of the city, were swept away; monuments overthrown; statues melted down into bullets; but whatever the domi-

nant power, reason or passion, the old building was still preserved sacred when no other influence or power could act.

When law was abrogated, and religion contemned, medicine still preserved her power, and will; for is it not bulwarked and hallowed into each individuality of existence by the first and greatest law of nature, self-preservation? Upon the architrave of this building is written, in plain simple letters, Hotel Dieu; formerly it ran, Maison de Dieu, House of God—a name far more appropriate to it than to many of the statelier mansions of ecclesiastic pomp. Else than this front of half a dozen doric columns, it is an unsymmetrical pile; but we delight to traverse its long, dark corridors, and its wards named from the different saints in the calendar, and to roam over its covered bridge over the Seine, which connects it by an underground tunnel with the newer female department beyond, peopling them with the many men of might in medicine, who have passed half a life time here before having graven names high and ineffaceable on the pillar of fame. It seems sacrilege to raze it, even for the magnificent structure in erection across the way; but its years are numbered now.

The same splendor that characterizes all the public edifices of Paris, has been lavished upon her numberless buildings for the care of the sick. Her finest hospitals really merit the name of palaces. It is hard to conceive of room for improvement after an inspection of the Laraboisiere, and the new Hotel Dieu will fully equal it in arrangement—surpass it in architecture.

There are so many and such excellent works on the various hospitals of Paris in your easy reach, especially one lately published with large illustrations of all the principal hospitals of Europe, that we may refrain from any attempt at description and occupy our limits with more agreeable matter.

We copy, then, first for the benefit of your many readers who were once Paris students, the list of present chairs and occupants in the summer session just closed:

M.M.

Medical Natural History, Baillon.
Physiology, Longet.
Therapeutics and Materia Medica, Gubler.
Surgical Pathology, Dolbeau.
Legal Medicine, Tardieu.
Pharmacology, Regnauld.
Obstetrics and Diseases of Women and Children, Pajot.
Pathological Anatomy, Vulpian.

Hygiene, Bouchardat.
Medical Clinics, See and Behier.
Surgical Clinics, Laugier, Gosselin, Broca and Richet.
Obstetrical Clinic, Depaul.
Diseases of Infants, Roger.
Diseases of Skin, ———.
Diseases of Eye, ———.

The course of study in the summer sessions, for the four years, is arrranged as follows:

First Year—Medical Natural History, Herborization, Exercises in the Botanical Garden of the Faculty, Chemical Manipulations.

Second Year—Physiology, Internal Pathology, External Pathology, Practical Exercises in Physiology.

Third Year—Physiology, Internal and External Pathology, Obstetrics, Operations and Dressings, Therapeutics and Materia Medica, Pharmacology, Pathology, Anatomy, Medical and Surgical Clinics.

Fourth Year—Internal and External Pathology, Obstetrics, Therapeutics and Materia Medica, Legal Medicine, Pathology, Anatomy, Hygiene, Medical, Surgical and Obstetrical Clinics, Practical Exercises in Medicine.

Paris is dull enough now in Medicine—during the long vacation, most of the professors being in the larva condition and only to develope when the winter session begins. The daily visits are still, however, regularly made, and occupation enough might be afforded to the student if he could be present at that period. Unfortunately all visits are made in the morning from eight to eleven; and as this is a city of magnificent distances, and the hospitals are situated in the most remote points of these distances, an attendance on more than two daily is simply impossible. We are somewhat happily situated in this regard, about the centre of the celebrated Latin Quarter, a few paces from the clinics of the school, and within ten minutes walk of the Hotel Dieu and the Charité. The clinics contain two departments, the Surgical and the Obstetrical, the latter under the charge of Prof. Depaul; and we may make a note or two on its character. And first, then, with all the magnificent material in every department of medicine, which a city of one and two-thirds millions inhabitants naturally affords, backed by the neat sum of four and a half millions francs annual expenditures for educational purposes, the whole amount of obstetrical material that may be used in the instruction of students, is contained in this pitiably small department of thirty-six beds! and that, too, when one entire third of all births is illegitimate. *Proh pudor!* The grand lying-in hospital of the city is inaccessible to stu-

dents—why, we know not; and an interrogation of a French student only yields that inevitable shrug of the shoulders which means so many things that we have never been able to arrive at anything satisfactory. That it does not depend on a profound respect for female modesty, a few remarks further on may illustrate. The hospital is ordinary enough, too, in other respects. There is a considerable show of white linen in beds and in curtains, which surround them here as everywhere in Paris; but there is not that cleanliness of nook and corner which bespeaks the constant vigilance of the superior officer in these matters of such vital importance in this department; and though there is an abundance of assistants, in their white aprons, and a superabundance of nurses for such a small affair, there is too much easy familiarity all round to ensure that discipline which is so essential to the character of a modern hospital.

We have not been able to glean much of novelty in the way of treatment. Eight days is the period of decubitus. Diet very low at first, is gradually increased. All cases of puerperal difficulty affecting the abdomen are hidden under a large cataplasm. One or two rather severe blisters we have seen applied. The only case of puerperal convulsions proved fatal—there was nothing special in the treatment. There is still one quite interesting case in the wards. An occipito posterior position was delivered with considerable difficulty by the forceps, (the long French instrument is here employed), subsequently fever ensued and a large abscess formed in the subcutaneous tissue, just over the uterus. Long shreds or masses of degenerated adipose tissue and rectus muscle are daily extracted through the small orifice of spontaneous origin, which permits the escape also of a profuse purulent discharge, attended with gas of such an odor as at one time to have caused a suspicion of intestinal lesion. The microscope, however, excludes all stercoraceous matter. To-day the cavity was injected with potass. permangan. Patient's condition critical from long continued suppuration, but recovery still highly probable.

One practical fact should hardly escape unnoticed, and that is the enveloping of premature infants in raw cotton, a perfect case being made, leaving only the face free—the best means we have ever seen employed for constantly preserving a proper temperature.

The number of cases of cancer in Maissonneuve's wards in the Hotel Dieu is perfectly astounding. It would seem that he selects such cases from the whole city. He attacks them, certainly, in a most fearless manner, as we do not ever remember to have seen such huge

sloughing surfaces as these after the application of his caustic. We know nothing of results. It was our pleasure to witness the application of his famous gutta percha air-excluder, &c., on several cases of amputated limbs. We certainly noticed several cases in which it did not prevent the formation of pus, and one in which he removed it altogether on that account.

Your readers are probably aware that all the public positions of Paris are filled by competitive examination. We had some curiosity to sift the matter a little, and to-day we accidentally encountered an announcement for a concours for two physicians and one druggist, with the laws regulating such things in general. *Voila* the following extracts:

"The candidate must be a graduate, and must have studied five years; if an interne in a Paris hospital, four suffices; if an interne laureate, it is still slightly reduced. He must be inscribed at the office of the Secretary of Administration at least fifteen days before the commencement of the concours. The members of the jury are drawn by lot by the Directors of Administration, in the presence of two members of the Council, delegated to this purpose. The duties of jurymen are obligatory, and they may only be excused for grave causes. There shall never be more than two jurymen from one institution. A service onte on a jury exempts from future service for a period of two years. Five days after closure of the lists, such candidate may present himself at the office of the secretary to acquaint himself with his jury. Any written objections to any juryman must be handed sealed to the Director, who shall consult with the two members of Council as to the proper steps. In case the Director and Councilmen fail to agree, the matter is to be referred for final decision to the Prefect of the Seine (mayor of the city). If no objection is tendered within five days, the jury is considered as definite. In case of a physician, the jury is composed of six physicians and one surgeon, seven in all, and all members of staffs of hospitals. For druggists, the jury to consist of six druggists, one physician and one surgeon—four of the druggists to be selected from the hospitals and two from the city. In all cases a parent or relative is to be sought out and excluded. The examination is divided into two varieties: first, the examination of admissibility, and second, the examination definite. The first is common to all competitors, the second only to those who have passed the first.

"Examination of Admissibility—1. An oral theoretical question on a subject of pathology—twenty minutes for reflection, and twenty minutes for answer. 2. A clinical examination of a patient—ten minutes for examination, and fifteen minutes for developing an opinion on the malady orally before the jury after five minutes for reflection. 3. A written opinion on a patient, for the preparation of which forty-five minutes is allowed after ten minutes examination—the opinion to be written immediately after the examination.

"Proofs Definite—1. A composition written on a subject of pathology, embracing its pathological anatomical elements—three hours time granted. 2. Clinical ex-

amination of two patients—twenty minutes for examination of the two—thirty minutes for the oral dissertation before the jury, after five minutes reflection.

"The maximum of points for each examination is fixed as follows: For admissibility, twenty; for the definite, thirty."

It is evident enough that mediocrity seldom gains admission into a Paris hospital, inferiority never.

The French student is a being of strange composition. Being a Frenchman, he partakes, of course, of his grand national characteristics; indeed, he is eminently an exponent thereof. He works all day generally faithfully, and then dissipates with equal fidelity all night. Of course there are many bright exceptions—we speak of the average. Dissipation in France, however, is not the course and vulgar rowdyism of many other lands; but is converted into a science, and displayed in such a manner as to allure youth in the most fascinating, almost irresistible manner. Every sense is addressed; the most tempting articles of luxury are every where paraded in the streets, the costliest and rarest viands, the choicest wines on the table, the most classical music at the opera, and grades all the way down in the lesser theater, whose name is legion, to suit the taste and pocket of every class. Woman is a luxury the most attractive of all. Boccacio's pen could scarce do justice to the morality of Paris. What Byron said of Spain, might be stated with equal justice of Paris. "The negation is omitted from the commandment, and it runs, Thou shalt."

Sunday is Saturnalia, and virtue and verdancy synonymous terms. Of course this is only the superficial view; and it must not be forgotten for a moment that behind all this dissolution and vice there still remain many great and honorable men, some of the world's greatest indeed, and many virtuous women; and it is to the peradventural existence of these that Paris may be said to be preserved from the effeminacy which proved the ruin of Venice, or from the more condign punishment which was visited upon Babylon, or Sodom and Gomorrah. W.

ZANESVILLE, OHIO, AUGUST 16, 1869.

MY DEAR PROFESSOR PARVIN: Please say to your readers that, in addition to the *New York Medical Journal*, the whole of the article on the "Aims of Modern Medicine," the concluding portion of which was copied into your August number, has been republished in the *Living Age*, number 1306, for June 12th, 1869, as well as in the *Lon-*

don Quarterly Review, republished in New York in April, 1869. The price of the *Living Age* is but eighteen cents, of the *Review* seventy-five cents; and they can be had at or through all news-dealers everywhere. The purchase of either publication, containing it entire, will be a wise investment for all those who desire to obtain in small compass the prime "Aims of Modern Medicine."

Yours faithfully, Z. C. McELROY.

ANNA, OHIO, AUGUST 12, 1869.

EDITOR JOURNAL: In Braithwaite's *Retrospect* for July, 1869, page 248, is an article by Dr. L. W. Sedgwick, on the use of a reflecting mirror in examinations by speculum. Allow me to suggest that the common bull-eye lantern meets every want—is easily managed, and the light is unequaled for brightness. W. McMILLAN, M. D.

BIBLIOGRAPHY.

TRANSACTIONS OF THE AMERICAN OPHTHALMOLOGICAL SOCIETY—FOURTH AND FIFTH ANNUAL MEETINGS, 1867–'8.

This volume is the exponent of one of the most industrious of our scientific bodies; as such it should command the attention of every supporter of progress. It contains about one hundred and fifty pages, beautifully printed, and many very elegant illustrations. The society numbers fifty members, all eminent in their specialty; and all have labored to contribute to the Transactions in such a manner as to make the work an honor to their body. We will take space for a short synopsis of some of its contents:

In a report on the Progress of Ophthalmology for 1865, 1866 and 1867, as an evidence of the importance at present attached to this science, mention is made of nearly three hundred new works and monographs on the subject.

Hutchinson says of ophthalmoscopic appearances in tobacco amau-

rosis, that at first there is redness simply, later the disk grows pale from its periphery, especially on the outer side, and at length assumes a milky whiteness. This process occupies from four months to a year—not attended with pain or photophobia; blindness gradual and, finally, complete. Withdrawal of cause often induces speedy arrest of symptoms.

Virchow for *struma exopthalmica* uses perseveringly *iron*, *digitalis* and *belladonna*—objecting to iodine as harmful.

Observers conjoin in the statement that enucleation is never to be neglected in cases of *sympathetic ophthalmia* where there is merely *irritability* or even *serous iritis*, but that it is useless where the sympathetic trouble amounts to an *irido cyclitis*.

Dr. Luca, of Naples, suggests the powder of sulphate of soda as a superior agent for removal of corneal opacities.

Prof. Knap suggests as an improvement, obviating sympathetic trouble in other eye, the use of conjunctival sutures in the operation for staphyloma.

Dr. H. D. Noyes advocates complete correction of differing degrees of astigmatism in the two eyes as the best means of obtaining good binocular vision.

In diseases of the nasal ducts Dr. H. W. Williams offers a modification of Bowman's probes—giving them a bulbous extremity, and diminishing the shaft. Dr. Green advises the use of lead as superior to other material for styles.

Dr. Derby cites two cases in which atropia induced acute symptoms in glaucoma.

In an exhaustive article Dr. Loring demonstrates that convergence can not be changed without a relative alteration of accommodation; but that accommodation may be changed without altering convergence.

Dr. H. Williams reports favorably on his method of using the corneal suture after flap extractions of cataract.

Dr. Green has introduced a new series of test types, an improvement on those of Snellen and Jager.

Dr. H. Noyes states that the appearances in glycosuric and albumenuric retenitis are similar.

Dr. Jeffries demonstrates the frequency of severe ophthalmitis in facial *herpes zoster*.

Dr. Hildreth states that anæsthesia of the cornea occurs not from general intra-ocular tension, but from a peculiar condition of the cili-

ary ring, and that it is speedily removed by division of this ring, all the accompanying symptoms disappearing also.

Dr. Williams, of Cincinnati, gives his approval of Graefe's method of linear extraction of cataract above all others, as affording a greater ratio of success. He prefers to operate without anæsthetics. Dr. Noyes, of New York, also gives his testimony in its favor, but always uses *chloroform*.

The volume concludes with a new series of tests for detection and measurement of astygmatism, by Dr. Green, of St. Louis. J. G. R.

PROCEEDINGS OF THE STATE MEDICAL SOCIETY OF KENTUCKY, HELD AT LEXINGTON, APRIL, 1869.

Kentucky has a medical history of which her physicians are justly proud. Ovariotomy had its origin in Kentucky. A Kentucky surgeon, still living, commenced, half a century ago, a series of operations for stone in the bladder, which, for the unvarying success that attended them, placed him at the head of the Lithotomists of the age. A work on Pathology and Therapeutics, from the pen of a Kentucky physician, Prof. Cooke, though now out of print and seldom referred to, exercised for many years, a wonderful influence over the medical mind of the South; and for learning, closeness of style, and force of logic, will compare favorably with any work that has issued from the American press. The great work of Dr. Drake on the Diseases of the Interior Valley of North America, was written while he lectured in one of the medical schools of Kentucky. Dr. Bartlett, while connected with another medical school in Kentucky, wrote his classical work on Fevers. Many of Dr. Gross' popular volumes were composed while he held a chair in the University of Louisville; and it was while he was connected with the same institution that Dr. Flint began to collect the materials for his unequaled work on Practice. The volumes of Transactions issued from the Medical Society of Kentucky, in former years, were of signal ability, and after an interruption caused by the war, it is pleasant to see that they have been resumed.

The volume before us sustains the reputation of the Faculty, which has been adorned by so many illustrious names. Dr. Pawling's address, as President, can not lay claims to much originality, but it is sensible, and, what in such addresses is a rare merit, it is short. The

report of Dr. T. E. Jenkins on the Exposition Universelle, at Paris, in 1867, is admirable. He could not have compressed more information into the same space. France, he says, in almost every department of industry, played the leading part, and took up nearly half of the immense building in the display of her products. The exhibition of chemicals and remedial agents was nearly endless. Dr. Jenkins says of quinine:

"Among the many remedial agents which organic chemistry has afforded us, quinine occupies the first place, chloroform and morphine the second. Without quinine large tracts, indeed whole countries, would be uninhabitable for the white race. To the backwoodsman, a supply of quinine is as important as gunpowder. The "quinine famine" in the Mauritius demonstrated to thousands how small a thing even gold itself might become in comparison with the life-saving salt. During that fatal epidemic, while the population were dying at the rate of one hundred and eighty to two hundred per day throughout the island, a few ounces of quinine were obtained from a ship, for which the enormous sum of one hundred and thirty-seven dollars, gold, per ounce, was cheerfully paid."

The following paragraph is interesting:

"The greatest chemical industry of Great Britain, if not of the world, is the alkali manufacture from sea salt. The enormous magnitude of the soda production may, to some extent, be appreciated when we know that full forty millions pounds are annually made. Connectedwith the soda works are factories for producing chloride of lime, by which process a vast quantity of muriatic acid, which is a by product, is utilized. This acid is eliminated from common salt by the action of oil of vitriol during the first step in the process of Leblanc for soda making; and if the immeasurable volumes of this gas were let loose into the atmosphere they would blast vegetation for miles around. It was once thought that this nuisance could be avoided by carrying the gas up, by means of tall chimneys, to the highest regions of the atmosphere. The Muspratts of Liverpool erected, at great expense, a shaft as tall as St. Peter's at Rome, and containing several millions of bricks, to carry off their muriatic acid; but, on trial, it was found that this plan only increased the evil; for the gas, being heavier than the air, spread its deadly influence over a very much larger area of country. It was next condensed in the rivers and streams on the banks of which the works were erected, but this plan was soon abandoned when it was found that it killed all the fish inhaling or visiting the streams. Now, this noxious gas is condensed by conducting it into huge stone towers filled with coarse silicous pebbles or coke, kept constantly wet with water dropping from above. The liquid acid runs out from below, and is utilized afterwards by decomposing it with binoxide of manganese, eliminating chlorine, to be used in forming chlorinated lime."

The report of Dr. Craig on Medical Ethics shows a becoming zeal for the dignity of the profession; and we like his suggestion, that professors in medical schools should instruct their pupils in the ethics

which should govern medical men in their intercourse with their patients and with one another.

The report on vaccination, by Dr. Poynter, will be read with interest and profit by all seeking information on that important subject. Dr. Frazee's report on the Botany of Kentucky is taken up largely with an excellent biography of Dr. Charles W. Short, who did more than all the other laborers in that field to develope the botany of his native State.

The report on Obstetrics, by Dr. Bryant, is a "*résumé* of the history of obstetrics," and presents many facts of interest. The defect most likely to strike the reader is the extreme succinctness of the report. More detail would have rendered it more valuable.

Dr. Jenkins has a second report in the volume, relating to his specialty—Pharmacy. It is a report to be preserved for reference—full of useful matter touching subjects which concern the physician in his every-day duties. Dr. Jenkins is fully up with the improvements in Pharmacy, and here presents many of the most important which have enriched it in our times.

Dr. Bayless contributes a paper of great value to these Transactions. It consists of a report of "five cases of diseases of the bone from common causes, with the results of surgical procedure." We regret that our limits will not permit us to make an abstract of this important paper. It evinces fine judgment and tact in the writer, and will be read with interest by the practitioner.

It is gratifying to witness such evidence as these Transactions afford, of professional industry and learning. We shall look forward with interest to the future contributions of the Kentucky State Medical Society to medical knowledge.

PRACTICAL MANUAL OF THE TREATMENT OF CLUB-FOOT.

BY LEWIS A. SAYRE, M. D.

New York: D. Appleton & Co. 1869.

At meeting of the American Medical Association, held at Washington in May, 1868, Dr. Sayre presented a "Report on the Treatment of Club-foot without Tenotomy," which was published in the XIXth volume of the Transactions of the Association. The present mono-

graph is an extension of the report referred to, and is a promised "installment of a work on Orthopedic surgery soon to be completed." The first three pages are devoted to a brief statement of the anatomy of the parts involved, particular attention being called to the "*medio-tarsal articulation*," *i. e.*, the articulation between the *astragalus* and *os calcis* behind, and the *scaphoid* and *cuboid* in front, an articulation that Dr. Sayre believes has been too much overlooked in the construction of "club-foot" shoes. In common with the majority of modern writers, rejecting the theory that the various forms of talipes depend upon the spastic contraction of the muscle or muscles acting upon the part or parts of the foot toward which the distortion occurs, the writer holds that the essential element of the affection, in the great majority of cases, is at least primarily a paralysis of the muscles opposed to those seemingly contracted. "I believe that *all* cases of congenital talipes, *if examined immediately after birth*, would be found to be paralytic in their nature, and that the spasm or contracture found to exist in some cases after a time is really acquired, and due to irritation or inflammation of the muscles and fasciæ involved. Not that I would deny the possibility of such a spinal disease as should cause a tonic spasm of the muscles existing *in utero*. But if such cases do exist, they must be very rare, and, for myself, I have never seen them. * * * * What has been said above of the lesion in congenital talipes is, to a great extent, true of the acquired form. Acquired talipes, very generally, is due to the various kinds of "infantile paralysis," which are the frequent sequelæ of scarlitina, diphtheria, dentition and many other diseases in which a blood-poisoning exists, or which are attended with great exhaustion. * * * * Some cases of acquired talipes, however, are not paralytic in their character; these are occasional cases dependent upon diseases of the spinal cord, in which treatment can be of little use while the originating disease is uncured; cases following direct injury, which has caused inflammation and subsequent shortening and rigidity of muscles and fasciæ; and certain cases, in which acquired spastic deformities are added to the paralytic ones previously existing. This last is a very common condition of things, and, doubtless, has been the chief cause in prolonging the belief in the spastic nature of most of these deformities." As respects the *seat* of talipes, "in equinus, as in varus and valgus, the deformity takes place at the medio-tarsal junction. The deformity of calcaneus does occur at the ankle-joint, and this, I believe, is the only variety of which this is true." The "prime indications" for treatment are: 1.

To restore the foot to its normal position. 2. To assist the nutrition by all the means within our reach, such as heat, friction, motion, galvanism," &c. The earlier these indications are met, the more certain the cure. "Whatever be the treatment employed, it should *begin at birth*, if the disease be congenital, or directly upon the receipt of the injury, if acquired." * * * * * * * * * * *

The most serious difficulties met with in the treatment of talipes arise from: 1. The advanced stage of fatty degeneration in the paralyzed muscles, due to prolonged neglect, and 2. The effects of the inflammation excited in the muscles and fasciæ by the irritation of walking with the feet in a false position; both of which difficulties could be avoided, or greatly diminished, by earlier attention to the case." Of *tenotomy*, which a few years ago was considered all-important in the treatment of club-foot, he says: "If what has been stated above regarding the paralytic origin of most cases of club-foot is true, then the severing of the tendons of muscles still remaining sound is entirely irrational. The very best result that could be expected from the operation would be, that the muscular support of the foot being removed on all sides, gravity would throw it into a normal position. The disease which underlies the distortion, namely, the paralysis, has been untouched. And if the tendon becomes firmly united, there is likely to be complete relapse of the deformity, if the union is complete, the foot hangs as helpless at the end of the leg as the flail of the thresher. But, while I believe that, in cases of congenital or acquired paralytic talipes, if taken in hand early, tenotomy is very rarely, if ever, needed, cases frequently present themselves where from neglect it is absolutely essential, as a preliminary measure to all other treatment. These cases are those in which the fasciæ have become contracted or the muscles contracted. Now, how is this contracture to be diagnosticated? By anæsthetizing the patient and then attempting to reduce the deformity. If the contraction yields without the rupture of any of the tissues, the condition is one of simple contraction, and can be relieved without section. If, however, the deformity persists, contracture has taken place, and tenotomy or rupture of the shortened tissues is demanded."

The most valuable part of the book to the general practitioner, is that devoted to the consideration of the various methods of dressing to be employed, either with or without tenotomy, as the case may require. The *roller bandage, gypsum bandage, sole-leather or gutta percha splints*, and the *adhesive plaster*, either alone or with added *india-*

rubber tubing, are considered with their several advantages. Though the ordinary *roller bandage* is simple, "and by constant observation and readjustment of the dressing a cure may sometimes be effected; yet this plan of treatment is applicable to a very limited number of cases, is very liable to get out of order, and therefore demands constant care, and has an objection, in common with all which permanently cover the limbs by bandages or splints, that it interferes with the necessary application of frictions and galvanism. The *gypsum bandage* possesses the advantage over the last plan that it does not change its form. * * * * The objections are, the weight of the dressing, the impossibility of inspecting the limb and of applying to it friction, electricity, &c. * * * * Both *leather* and *gutta percha* are superior to *gypsum*, in that they can be daily removed for personal inspection, manipulation, friction, shampooing and electricity. * * * * A large majority of congenital deformities, if taken *immediately* after birth, can be easily retained by the simple application of *adhesive plaster*. * * * * Although this plan is frequently successful, cases do occur in which the muscular rigidity is too great to yield to manipulation, unless continued for a longer time than can be generally given. A constant tractile force then becomes necessary,'and the plan suggested by Mr Richard Barwell of London, is by far the best." In this plan (Barwell's) india-rubber cords are so attached to the leg and foot as to counterbalance the action of the apparently contracted muscles; in other words, the work that can not be done by muscles now paralyzed, is done, and more perfectly than might be expected, by elastic bands. "The advantage of this plan is, that it is in imitation of the natural action of the parts, permitting and promoting the constant movement of the muscles and joints, thereby increasing the circulation in the same, and necessarily improving their development and power." Respecting the advantage, in fact the necessity, of motion, Dr. Sayre says: "I can not too frequently urge the necessity of motion as a means of permanent cure, or too strongly deprecate the use for any length of time of any form of appliance which shall prevent or materially limit the proper movements of the foot. Without motion the muscles can not be restored to their normal degree of development, consequently the talipes will be cured only in form, and not in reality, and relapse will be the natural sequence of such incomplete treatment. Motion is the essential element of cure; and I think the chief value of galvanism and faradism, as promoters of muscular growth, lies in the muscular contractions which they pro-

duce. The growth is the result of action." Of the very simple plan of treatment adopted by Henry Neil of Philadelphia, in 1825, ("to fasten the child's feet to a board made to fit the soles of the feet, and joined together opposite the ankle-joints,") the writer remarks that "the restraint is of course irksome to the child, and, in his efforts to kick himself out of the bandages, he brings into action all the muscles of the legs—accomplishing the very object desired—and in the graphic language of Dr. Atlee, kicks himself straight."

In order that the movements at the medio-tarsal articulation may be preserved, and at the same time advantage be taken of Barwell's india-rubber muscles, Dr. Sayre has had made a "club-foot shoe," jointed in the middle of the sole. This "shoe" (solely to recommend which, some have said, the work under consideration was written), seems to answer very well the indications which must be met by any satisfactory apparatus. The elastic cords supplement and develope the atrophied muscles, and the hinge between the heel and sole allows the shoes to be adapted to the foot, and the necessary after-motion to be made. The record of cases treated, to which nearly one-half the book is devoted, shows the beneficial effects of "Sayre's shoe," at least in the Doctor's hands.

The mechanical execution of the book is excellent, as might be expected of anything issued by the "Appletons." P. S. C.

EDITORIAL AND MEDICAL NEWS.

THE CHAIR OF OBSTETRICS AND DISEASES OF WOMEN in the Medical College of Ohio, having become vacant by the resignation of the Editor of this journal—his acceptance of a chair in the Louisville University being the cause of this resignation—has just been filled by the election of Dr. C. D. Palmer, of Cincinnati. Dr. Palmer has lectured with acceptance in the summer school connected with the Miami College, is a gentleman of excellent professional attainments, and is an industrious student; and we anticipate for him in the new and honorable position to which he has been called, conclusive evidence of the wisdom manifested by the Faculty and Trustees in his selection.

The severance of a connection with the Medical College of Ohio which has existed for five years, does not abate our desire for the pros-

perity of this venerable institution, nor our regard for the hundreds of young men to whom we have had the honor of lecturing in it.

QUITE POSSIBLY the American Profession had no representatives at the recent meeting of the British Medical Association: an extract from a letter just received from Dr. Hibberd will explain the reason of the failure of at least two of our delegates to be present:

"Here I am, a victim to my faith in the immutability of British institutions. I came down from the Alps at a run to be at Leeds in time for the meeting of the British Medical Association, and arrived there according to programme to find myself just one week too late. Within the last few weeks they changed the day of meeting from the usual and adjourned time to the preceding week, on account of local considerations about Halls and Assizes. This was well enough for the members of the Association, for they all learned of the change in time; but foreigners could only know of it by chance, and such luck came neither to Dr. Pinckney, U. S. N., nor myself, for we met there last Tuesday with our credentials as representatives of the American Medical Association, and condoled with each other over our wild goose chase. There may have been other Americans ditto, but I did not see them.

"After seeing Teale do Ovariotomy next day, I left, and at Edinburgh had a pleasant afternoon with Dr. Bennett, who showed me one of Brown-Sequard's epileptic rabbits. This gentleman had a basket full of them at the Leeds meeting, and having spent a day or two with Prof B., in Edinburgh, gave him one. As you have seen an account of these rabbits in the journals, I will not say more than that it is both curious and instructive to see the little fellow take on his fit at the pleasure of the operator."

THE BOSTON MEDICAL AND SURGICAL JOURNAL, August 19th, in an elaborate notice of the Prize Essays of the Massachusetts Medical Society, on "the Part performed by Nature and Time in the Cure of Diseases," speaks of Dr. Hibberd's as "a model of elegant and forcible diction, and of terse expression"—a compliment well deserved, and coming from a most worthy source.

WE SEND out bills to all delinquent subscribers; and, of course, in making them, where more than a thousand names must be examined, some mistakes have probably occurred: all such mistakes will be promptly rectified when made known to us. We find more than three thousand dollars due the *Journal*. Ought not the greater part of this amount to be paid within the next month?

FOR SALE.—An order for an artificial limb can be had at much less than the usual cost. Address the Editor.